OBSERVATIONS
ON
PELVIC TUMORS
OBSTRUCTING PARTURITION.
WITH CASES.

BY JOHN C. W. LEVER, F.S.S.

Before proceeding to remark on some cases of Pelvic Tumors which have fallen under my notice or have been communicated to me by friends, it will not be uninteresting to ascertain what notice has been taken of these obstructions to labour, by other writers.

Hippocrates, in his Second Book, Περὶ τῶν Γυναικείων, alludes to carcinomatous tumors, but at the same time expresses his belief in their power of preventing conception; while, in his First Book, he regards the unnatural position of the fœtus as the only cause of difficult labour. Celsus, in his Seventh Book, while treating of the operation of turning, expressly forbids the operation to be performed when inflammation is present; but he does not appear to have recognised the impediments to labour caused by pelvic tumors. The first author who enumerated tumors obstructing labour, is Moschion*. Galen, like Hippocrates, treats of scirrhus of the womb, but makes no mention of pelvic obstructions. Œtius has detailed the causes of difficult labours depending upon the mother: he mentions obliquity of the neck of the womb, fleshy tumors growing to the os or cervix, inflammation, abscess, and induration of the same parts, calculi in the bladder, impacted fæces, and an over-distended bladder. Paulus Ægineta makes but very slight and distant allusion to the matter under consideration. Avicenna speaks of the congenital diminution of the mouth of the womb, and of rigidity the result of ulceration, as well as other varieties of constriction: he further alludes to affections of the bladder and rectum, as

* Περὶ τῶν Γυναικείων.

occasional causes of difficult labour. Albucasis mentions "swellings" of the os uteri, as impediments to delivery; and, amongst other remedies, recommends the warm bath. During the time that priests exercised the healing art, they endeavoured to cure all diseases by prayer; and consequently, with the other branches of the profession, that of obstetricy was especially impeded, as men were precluded from attending or rendering assistance to parturient women, under heavy penalties; and it was not until the twelfth century that we find Eros treating of those causes which render labour difficult, and depend upon the mother: amongst others, he mentions constriction of the mouth of the womb. Gorden, in 1285, in the Seventh Part of his work, speaking of tedious labours, enumerates, with other causes, induration the result of injury received in previous labour. The discovery of the art of printing opened a new æra in all branches of science; and, consequently, in the science of obstetricy. Rösslin, Ruffius, Tigurinus, Rocheus, Hieronymus, Mercurialis Mercatus, published their opinions, in which pelvic obstructions are more or less referred to. Akakia, also, a court physician and Professor in the University of Paris, in his "Treatise on Female Diseases," recommends that abortion should be induced at the proper time, if there be ὑπερσάρκωσις or any chronic tumor, condyloma, meliceris, or steatoma. At the close of the sixteenth century, many diversified opinions were published concerning the employment of the Cæsarean section, in difficult parturition; and, amongst other indications for its employment, labour impeded by tumor is enumerated. Ambrose Parè, however, altogether inimical to this operation, in his Twenty-third Book, advises, when labour is so obstructed, to have recourse to semicupia, prepared from emollient decoctions. This opinion and treatment of Parè's were opposed by Rousset, in his Treatise on Cæsarean Labour, published at Paris in 1581. At that time, the strongest advocate for the Cæsarean section was Julius Cæsar Arantius of Bologna. In his work published at Venice, 1587, he treats of the malformation of the bones of the pelvis impeding labour. Guillemean, in his "De la Grossesse et Accouchement des Femmes," has published a case where a calculus in the bladder obstructed labour; and he also relates others,

where fleshy tumors in the neck of the womb rendered labour difficult, preventing the parts from being sufficiently dilated to permit the transmission of the child.

Louise Bourgeois, midwife to the queen of Henry IV. of France, published a work on midwifery, in which she relates cases of scirrhus and stone in the bladder as causes of difficult parturition. Mauriceau, in his "Traité des Maladies des Femmes grosses," (5th edition, Paris 1712,) amongst the causes of difficult labour, enumerates retention of the fæces and urine, urinary calculi, narrowing of the trunk of the womb by some tumor or swelling, ulcer, superfluous growth either in the neck itself or at the internal orifice: he further states, the narrowing may be occasioned by a preceding difficult labour. Portal, in his "Pratique des Accouchemens," merely refers to scirrhus of the womb as an impeding cause of labour. Völter, in 1687, published his "Neu eröffnete Hebammenschüle;" and in the chapter which treats of the causes of difficult labour depending upon the mother, he not only enumerates ulcers in the vagina, but also excrescences, condylomata, and varices. If the parts are so contracted, from any of these causes, that the child cannot pass, Völter is of opinion that the surgeon should perform what is necessary to be done, before the commencement of labour. Sylvius F. de la Boe, in his "Opera Medica," published at Amsterdam, 1680, treats of exostosis in the pelvis impeding parturition. Bonetus, in the "Sepulchretum," and Van der Wiel, in his "Observationum variorum," have each published many observations connected with the subject of pelvic tumor. At the commencement of the eighteenth century, Deventer wrote his excellent treatise, in which he states that the operations of surgery impart a new light to obstetricy; and in his twenty-ninth chapter, where he speaks of difficult parturition arising from any disease or defect in the womb, he says, "By accidents, as collision, contusion, blows, &c., the womb is injured: it inflames, ulcerates, becomes indurated, and sloughs." ..... "By either of these conditions, labour may be rendered difficult." ..... "Sometimes the uterus is attacked with scirrhus and carcinoma, which cause it to grow thick and hard, so that it is with difficulty compressed." In his thirtieth chapter, also, he treats of labour rendered

difficult by "defects in the vagina, bladder, rectum, and pudendum." Amand, in his "Nouvelles Observations," 1714, Paris, and Dionis, in his "Traité général des Accouchemens," 1713, allude to labour rendered difficult by excrescences or superfluous growths, by scirrhus in the cavity, at the internal orifice, or in its neck. Levret, in his work published at Paris 1760, in the article "Des tumeurs dans la matrice ou la vagine qui peuvent faire obstruction à l'accouchemens," says, "It is of importance that we distinguish not only the size of the tumor which is the obstacle to parturition, but also its seat and attachment." He afterwards recommends removal by ligature, to be employed in polypi uteri, and in solid tumors;—the woman to be placed on the side from which the tumor grows. But if a tumor occupying the vagina cannot be removed in this manner, he advises that its contents should be evacuated: and if the vaginal tumor be caused by a descent of intestine or the urinary bladder, the misplaced viscus is to be restored to its situation. In his tenth article, he further advises retention of urine during labour to be relieved by the catheter; and also treats of labour complicated with urinary calculi. And in his last article (thirteenth), he makes some observations on carcinoma of the neck of the womb, in obstructing labour.

Smellie, in his "Treatise on the Theory and Practice of Midwifery," published 1772, amongst other causes of difficult parturition, enumerates "glands and scirrhous tumors that block up the vagina;" and further, among the indications for the performance of the Cæsarean section, speaks of the "large excrescences and glandular swellings that fill up the vagina and cannot be removed." He also treats of urinary calculi, polypus uteri, and vaginal hernia, co-existing with labour. Rœderer, in his "Elementa Artis Obstetriciæ," published at Göttingen, 1757, in alluding to the impediments of labour, divides them—1st, into inflammatory, scirrhous, ulcerous, or cancerous tumors, which prevent the dilatation of the mouth of the womb, rendering it especially painful: 2dly, tumors of the bladder or rectum, compressing the orifice of the womb and vagina, including also the distended bladder and rectum; and calculi occupying the urethra, or neck of the bladder: 3dly, vaginal tumors, whether fungoid or simple

growths, tumors caused by inflammation, ulcers, &c. And in his thirteenth chapter, he further alludes to the treatment necessary to be employed,

Crantz, who taught the obstetric art at Vienna, under the patronage of the Empress Maria Theresa, in his Commentary on Rupture of the Uterus, published 1766, amongst other causes, alludes to pelvic exostoses:—"In which case," he says, "when rupture of the uterus is threatened, the Cæsarean section alone affords the hope of ultimate success."

Alexander Hamilton, amongst the causes of difficult labour, enumerates contraction of the vagina, caused either by tumors or ulceration, removable by surgical assistance. He also treats of the removal of calculi.

Baudelocque, in his "Art des Accouchemens," treats of scirrhous tumors, polypi, and urinary calculi, as obstructing causes of labour: and he is the first writer who recommends the replacing of an ovarian tumor, impeding labour, into the abdominal cavity.

Denman, in his "Introduction to the Practice of Midwifery," alludes to retention of urine, growths from the orifice of the uterus, and ovarian tumors, as causes of obstructed parturition.

But, without continuing the history of these subjects to the present time, it will be sufficient for my purpose to refer to those papers and monographs which have been published from the time of Dr. Denman up to the present period.

In the second, third, tenth, and seventeenth volumes of the "Transactions of the Royal Medico-Chirurgical Society," there are cases by Park, Merriman, and Hewlitt. In his "Synopsis," Dr. Merriman has fully considered the subject. In the "Edinburgh Medical and Surgical Journal," Vol. XVI. and XXXV., there are cases by Mr. Bell and Dr. Hemming. Gardien, in the third volume of his "Traité complet d'Accouchemens," has carefully examined pelvic exostoses. Madame Lachapelle, in the tenth chapter of the third volume of "Pratique des Accouchemens, publié par Ant. Dugés," has treated of obstacles depending upon the soft parts: this illustrious woman, after a long and large experience, regards the diagnosis of tumors as especially uncertain. Gooch, in his work on the "Diseases of Females," treats of polypus

combined with pregnancy. Dr. Ramsbotham, sen., in his work on Practical Midwifery, a publication which ought to be in the hands of every practitioner, mentions cases of tumor in the pelvis and vagina obstructing parturition. Dr. Davis, in his "Elements of Obstetric Medicine;" Dr. Burns, in his "Principles of Midwifery;" the published Lectures of Dr. Blundell, Dr. Rigby, and Dr. Ramsbotham, jun., all more or less consider the question. Madame Boivin and Dugés treat of cancerous tumors. Velpeau, in his "Traité complet de l'Art des Accouchemens," offers many cases of labour impeded by tumor. Paul Dubois, in his Thesis published in 1834, treats of the nature and origin of pelvic tumors, particularly those caused by urinary calculi. Stein, jun. (Lehre d. Geburtshülfe, Erster Theil, Elberfeld, 1825) speaks of exostoses, and osteosteotomata, of excrescences in the neck of the womb, and of bodies encroaching upon the vagina; many examples of which have also been adduced by Siebold and Meissner. To these must be added the Treatise on Pelvic Tumors by Puchelt; which has the advantage of a recommendatory Preface by the distinguished Professor F. C. Naëgle; and from which I have derived much assistance, in searching for the investigations of ancient writers. Dr. Ashwell, in the Second Volume of the Guy's Hospital Reports, has especially drawn the attention of the Profession to the complication of pregnancy with uterine tumor; and has sanctioned the performance of operation for the induction of premature labour, previously recommended by Akakia*, in his "Treatise on Female Diseases," in order to prevent the fatal consequences so frequently resulting from this form of complicated labour; and lastly, Dr. Ingleby, in the third section of his "Facts and Cases in Obstetric Medicine," has adduced many instances of obstructions in the soft parts to the progress of labour, accompanied with numerous interesting observations, which his extensive practice and great acumen render most valuable.

Pelvic tumors take their origin from various parts and tissues of the pelvis; and in considering them, it will be advisable to arrange them into two classes: 1st, Those which

* Spachii Gynachia, Argentinæ, 1597. p. 783. lib. ii. cap. 4. De Abortû.

implicate the pelvis itself, or those organs and structures concerned in the birth of the child: and, 2dly, Those tumors which belong to or implicate the parts in the neighbourhood of the birth-passages. The first division will comprehend, *A.* tumors of the bony pelvis and its ligaments; and, *B.* tumors of the uterus and vagina, which, by their size or structure, impede the progress of a natural labour. The second division will include those diseases of the ovaries, Fallopian tubes, rectum, bladder, cellular tissue, as well as those varieties of pelvic hernia which may offer an obstruction to the course of natural parturition.

I. TUMORS IMPLICATING THE PELVIS ITSELF, OR THOSE ORGANS AND STRUCTURES CONCERNED IN THE BIRTH OF THE CHILD.

A.—*Tumors of the Bony Pelvis and its Ligaments.*

THERE are two varieties of tumor which originate in the bones of the pelvis; viz. exostosis, and osteosarcoma.

Exostoses take their origin from either the internal or external plate of the bone; while through their whole structure, and throughout their course, they preserve the normal texture of osseous matter: or the tumor may be harder than true bone, although possessing the integral, chemical, and microscopical characters of bone. Osteosarcoma is a mixed substance, partly osseous and partly fungous, more commonly proceeding from an articulation or a ligamentous structure than from a bone.

The most common situation for the commencement of pelvic exostoses is the last bone of the sacrum: they have also been found at the junction of the last lumbar vertebra with the sacrum. Occasionally, they are found growing from the pubes or ischia; but examples of exostoses growing from these bones are more rare than cases of this tumor springing from the sacrum. The situation of the tumor will have a material influence in the production of symptoms by which their presence may be suspected, particularly the pressure which their contiguity to important viscera, vessels, and nerves, enables them to exercise; but in most instances, their existence has not been dreamt of, until the period of

utero-gestation has been completed, and the progress of the labour is found to be obstructed by a foreign body occupying the pelvic cavity.

The diagnosis of these tumors is by no means easy: their firm attachment to the bone itself, and their great hardness, are the two principal signs by which they are to be distinguished. Naëgle says, that "the diagnosis between the projecting promontory of the sacrum, caused by rickets, and exostosis growing from the sacrum itself, is so obscure, that the best obstetricians have mistaken the one for the other, and even both, for the presenting fœtal head. The tumor, when felt through the vagina, is hard, unyielding, and rough, covered by the canal, and more frequently growing from the posterior than the anterior part of the pelvis. If the tumor be so situate, and an examination is made *per rectum*, the course of the gut will be found turned from its normal direction, and placed in front of the tumor. In drawing our diagnosis between these tumors and rickets, we should thoroughly investigate the patient's previous and general health. In exostosis, the patient generally has made no previous complaint, and her pelvic dimensions in other respects are found to be normal; whereas in rickets, there will be the history and aspect peculiar to, and diagnostic of, that affection; while the *tout ensemble* of the woman, and it may be the size and shape of her pelvis, will enable us to trace to its right origin the obstacle to the progress of the labour. The formation of exostosis is frequently to be traced to some external cause, as a blow, kick, fall, &c.; but there appears to be some constitutional predisposition to osseous deposit, to account for their development. Patients who have suffered from rheumatism, or those in whom the gouty diathesis exists, seem predisposed to the formation of exostosis.

The size, form, and seat of the exostosis must exercise a considerable influence upon the prospect of recovery to the mother, and safety to the child, when these tumors are complicated with pregnancy. Cases are recorded, where the pelvic cavity was completely filled with a tumor of this kind; whilst others are published, and specimens are preserved in some Museums, in which the bony tumor is so small, that if the head of the fœtus had been of normal

dimensions, no great or serious impediment to its delivery could have taken place. In form, these tumors are generally more or less round or conical; but if the shape of an exostosis be long, and if by its length it encroaches upon the pelvic cavity, it will render the labour more serious. The situation of the exostosis is of especial moment, for the difficulty and risk of labour is much greater when exostoses are situated in the pelvic cavity; and besides, there is more danger when they coarct the brim of the pelvis, than when they encroach upon the outlet. Although these tumors are not generally discovered until the patient is in labour, yet a vaginal examination, made either to ascertain the condition of the uterus itself, or the causes of various symptoms, may lead the practitioner to the detection of the tumor before the patient is pregnant, or before utero-gestation was advanced too far to allow of its being terminated artificially.

Case 1.

The only case of pelvic exostosis I have seen, was in an unmarried female, a lunatic, who had for many years suffered from central pains; but the cause of whose ailments was not discovered until I was called upon to relieve her distended bladder, the retention of the urine being occasioned by an exostosis growing from the pubes. The nature of the tumor was suspected during life, from its hardness, immobility, form, &c.; and a post-mortem examination proved my suspicions to be perfectly just. If such a tumor be discovered in a female who is pregnant, the most careful examination must be instituted, to ascertain its seat, its dimensions, and the difficulties its form may create: and after these have been satisfactorily made out, the practitioner must then determine whether he can safely permit his patient to go to the full period of gestation, and trust her delivery to the natural efforts, or to his assistance by means of the forceps, or whether the circumstances will warrant him in inducing premature labour or abortion.

If the exostosis be small, and especially if it be attached to one of the bones forming the outlet of the pelvis, the practitioner should give the patient a fair chance of delivery by the natural efforts, particularly if the pains are vigorous, and

the fœtal cranium is not firmly ossified, but compressible, as in the case related by Danyau, in his Lectures. Burns quotes a case from Campbell, where, from pelvic exostosis, the left parietal bone was so greatly sunk as to cause the eye to protrude: and Dr. Rigby relates, that Professor Otto, of Breslau, mentions the case of a woman who had pelvic exostosis, being the mother of four children, in each of whom a small portion of the cranium was depressed, and not ossified. But if the surgeon determine to allow a full trial of the natural efforts, he must carefully watch his patient, lest her strength become exhausted, or lest rupture of the uterus take place. If the conjugate diameter of the pelvis will allow the introduction of more than three fingers, the forceps may be applied; and amongst the circumstances rendering their employment necessary, pelvic exostosis is mentioned by Madame Boivin, in her celebrated "Memorial." If this instrument have been employed ineffectually, or if the conjugate diameter of the pelvis measures less than the breadth of three fingers, craniotomy must be had recourse to. Some writers have recommended the operation of turning to be performed; but although version may be accomplished, the difficulties arising in the delivery of the head will not be lessened by the alteration of the position of the child: and although more extractive force can be used, yet the force necessary to effect the delivery may not only cause the death of the child, but also occasion that of the mother; as in the case of Van Döveren, alluded to by Naëgle. Symphysotomy, recommended by some writers, appears not to have been followed by success in the hands of those who have practised it; although Michell asserts, that after its performance the forceps may be applied, where previous attempts to introduce them have failed. Gardien states, that in exostosis of the base of the sacrum impeding the descent of the fœtus, symphysotomy is the only remedy whereby a living child can be delivered. If the exostosis be not discovered until the completion of utero-gestation; or if it be of large size, as in the extraordinary case of Dr. Haber, of Carlsruhe; or if it be so located as to prevent the introduction of the forceps; or if it be impossible to extract the child, even after the cranial contents have been evacuated; the only mode of delivery is by performing the

Cæsarean section. Ruleau, Leydig, M'Kibbin (Edinburgh Medical and Surgical Journal, Vol. XXXV.), Spitzbarth, and Siebold, have performed the Cæsarean section in labours complicated with pelvic exostosis. But if we have the opportunity of ascertaining that such a tumor exists, which will prevent the delivery of the patient by the natural efforts or by the employment of the forceps or vectis, or if its dimensions are such that perforation must be performed, or even the Cæsarean section itself may be necessary, it is most assuredly our duty to induce artificial delivery; the period of pregnancy, at which the operation is to be performed, depending atogether on the size and situation of the pelvic obstruction.

Cases of exostosis of the pelvis obstructing parturition will be found in Siebold's Journal, Vol. III.; in the Treatise of Herbiniaux, "sur divers Accouchemens Laborieux," Vol. I. 1782; in Gardien's "Traité complet d'Accouchemens," Tom. III.; in Vol. XXXV. of the Edinburgh Medical and Surgical Journal, April 1831—Case of Cæsarean operation by Dr. M'Kibbin, communicated by Dr. Campbell. Other cases are recorded by Wigand, in "Einige Wörte au den Herrn Professor Osiander, 1801;" in the "Dissertation sur les causes qui exigent l'operation Cæsarienne, par A. Marchand, de Nantes, 1816;" and by Plenk, in Vol. XVII. of his Commentaries," 1771.

Osteosarcoma, or osteosteotoma, is a disease which, where it attacks a bone, so alters its texture, that the tumor thence arising is composed of a fungous body, containing fleshy, gelatinous, and cartilaginous matter, interspersed with more or less variously-formed osseous particles. This form of tumor is a rare cause of pelvic obstruction: its growth may be occasioned by a blow or fall, occurring in a scrophulous or cachectic habit, or, as some say, in a constitution previously poisoned by syphilis. The immediate cause of these tumors appears to be inflammation, affecting the periosteum and soft tissues of the bones: the cells of the bone enlarge, a smaller portion of phosphate of lime is secreted, and a fleshy or cartilaginous substance is produced; as may

be seen by macerating a tumor of this kind for some time, when slender and empty cells become apparent. Fixed pain generally marks the inflammation which attends the onset of these tumors. Their diagnosis is very difficult: when one exists, it may be mistaken for the fœtal head; but its origin from some part of the bones of the pelvis, and its consistence, are the two grand distinctive marks that assist in the diagnosis. This latter feature must also enable us to distinguish between those tumors and pelvic exostosis; the latter being hard and unyielding throughout; the former being hard in some places, soft in others; in some places permitting compression, in others resisting it. Its form, also, is occasionally irregular. If such a tumor is detected in a female who is pregnant, the accoucheur must accurately and carefully examine, in order to ascertain whether he can safely trust her delivery to the natural efforts; whether assistance by the embryospastic instrument will be sufficient for the delivery of the child; or whether the tumor be of such a size and so situated, or the pregnancy so far advanced, that the Cæsarean section alone can be performed,—at all times an operation of great risk, and especially replete with danger when performed upon females having such a constitutional diathesis as predisposes to the development of this form of pelvic tumor. The same remarks concerning artificial evacuation of the uterus will apply here as in exostosis.

Two cases of this rare, pelvic obstruction are recorded by Puchelt, in his "Commentatio de Tumoribus."

Case 2.

The particulars of the first case was forwarded by Grimmel, of Kisbaden, in a Letter to Naëgle, dated Dec. 28, 1835. The patient was thirty-five years of age, of cachectic habit, and the mother of three children, her last two years old, shewing marks of scrofula: her previous labours had been good. For a long time she had experienced pains in the sacrum, and had frequently suffered from ischuria: she had not been able to move her right thigh without a feeling of great weight. The symptoms she attributed to a fall she had while carrying a tub filled with grapes, striking herself on the buttocks and right side of the pelvis. On examination,

the osteosarcoma arising from the right side of the pelvis was so large, that there was no room for the hand of the accoucheur to be passed. Grimmel performed the Cæsarean operation, by which means a living child was extracted. Unfortunately, the mother died on the following day. On inspection, the fundus of the uterus was discovered about a finger's breadth from the umbilicus: about two ounces of blood and serum were extravasated in the abdominal cavity: the viscera were sound. The tumor took its origin from the periosteum of the right os innominatum, more especially from the spine of the ischium and wall of the right acetabulum, passing over towards the cavity of the pelvis. The preparation weighed one pound and a half.

Case 3.

The second case occurred to Stark*. His patient had also suffered from pain in the right iliac region. On making examination, although he thought he felt the head of the child in the pelvic cavity, he could not find the orifice of the womb. On the 18th of December the true pains of labour commenced; when repeating the examination, he passed his whole hand into the pelvic cavity, towards the right side, and found some hard body presenting, similar to the presenting head of a child, immoveably attached to the bones of the pelvis, and which could not be encompassed by the finger with difficulty passed between the pubes and the tumor: above this, the index-finger reached the orifice of the womb, and through it touched the presenting head of the child. The tumor itself, more accurately examined, seemed immoveable, and in many parts soft. Examination *per anum* fixed the seat of the tumor on the false vertebræ of the sacrum and os innominatum. Stark performed the Cæsarean section; by which operation the lives of both mother and child were saved.

This description of osseous tumors growing from the pelvis, and impeding parturition, would be incomplete, without referring to those fractures of the pelvis which

* Dr. J. C. Starkii Zweite Tabellarische Uebersicht des Klinischen Instituts zu Jena nebst einer glücklich aus geführten Sectio Cæsarea. *Jena*, 1784.

occasionally take place; and where, from the inner surface of the union, ossicula project into the cavity, affording a complete obstacle to the transmission of the fœtus. Burns states, that he has seen "extensive and pointed ossifications stretch for nearly two inches into the pelvis," in consequence of fracture of the acetabulum. I have seen a bony projection, more than an inch long, encroaching upon the pelvic cavity of a man who had previously suffered from fracture of the acetabulum.

The great degree of deformity induced in the pelvis of Jane Tustin, upon whom Mr. Barlow performed the Cæsarean operation, was owing to a fracture of the ossa innominata. Sandifort, in his Mus. Anat., Vol. II. Table 45. Fig. 5, 6, 7. has given engravings of pelves much deformed in consequence of the sacrum having been fractured, and the pieces having united at almost a right angle.

Case 4.

Dr. Merriman kindly forwarded to me an account of a case of anchylosis of the coccyx, occurring in a lady who, five years before he was consulted, fell upon the sacrum. In her previous confinement, the child nearly perished, the coccyx not yielding in the usual manner: the forehead rested on this bone for many hours; and the head was indented by the sharp point of the bone, and the skin abraded. The delivery was ultimately accomplished by the short forceps, so soon as they could be effectually applied. The child did not live: it never got rid of the injury inflicted on the forehead. Dr. M. was consulted by another eminent accoucheur as to the propriety of inducing premature labour at the end of the eighth month.

TUMORS OF THE UTERUS AND VAGINA.

1. *Tumors of the Uterus.*—The tumors to which the uterus is liable, and which offer obstruction to the progress of labour, will be more advantageously considered under the following heads:—*a.* Induration of the os and cervix, the result of chronic inflammation. *b.* Abscess of the neck of the womb. *c.* Elongation of the anterior lip of the os uteri. Specific tumors, including, *d.* Hard or fibrous tumors; and *e.* Polypi.

and malignant tumors; embracing, *f.* Carcinoma, and Cauliflower Excrescence.

a. Induration of the Os and Cervix.

Induration of the mouth and neck of the womb is not unfrequently met with, as an obstacle to the progress of labour. It appears to be the result of chronic inflammation, which has continued for some time unattended to, or uncontrolled by the remedies which have been employed. It may affect both limbi of the os uteri at once; or, what is more common, one only may be hypertrophied. The anterior is more frequently enlarged and indurated than the posterior: this, no doubt, is caused by its position rendering it more exposed to those causes which induce inflammation.

On minutely investigating the history of these cases, we shall find that the patients have suffered for some time from the symptoms of inflammation of the os and cervix uteri; which at first were acute, but afterwards became of a passive character; the symptoms consisting of central pains extending to the back and loins, increased by voiding the contents of the bladder and rectum; and great tenderness in sexual intercourse. At first, there was a thin creamy discharge, resembling (to use Sir C. M. Clarke's words) "a mixture of starch and water made without heat;" this discharge becoming thinner as the disease became more passive. Frequently, the menstrual periods are marked by great pain; the leucorrhœal discharge being always thick and creamy for two or three days after the menstrual period, and again assuming a thin appearance until the return of the next catamenial flow. As the hypertrophy of the part affected increases, so will the sensation of pressure caused by the encroachments which such an increase of structure produces in the neighbouring parts. If the hypertrophy and induration exist in the anterior lip and cervix, the patient will have frequent calls to pass her urine; and at first, the excretion will flow with difficulty: if the hypertrophy exist in the posterior limbus of the os uteri, difficulty will be experienced in defæcation, and tenesmus be produced. I have, on more than one occasion, seen patients who had been pronounced to labour under stricture of the rectum, in which no organic change existed in the bowel itself; but in them, the

obstruction was solely caused by the hypertrophied and indurated posterior lip of the os uteri. This affection may be distinguished from scirrhus, by the absence of those lancinating pains which frequently attend the progress of malignant disease;—by the regularity of its surface; for although it gives to the finger of the examiner the feeling of firmness, still it wants that stony hardness so characteristic of the graver disease. I however confess, that, not unfrequently, patients in whom induration of the os uteri exists, do, later in life, become the subjects of scirrhus deposited in the situation occupied by the hypertrophic induration; but still, it by no means follows that scirrhus should of necessity attack patients so affected. This induration and hypertrophy, when it attacks the anterior limbus, is to be distinguished also from elongation of that part, by the latter being softer, and from its becoming developed during the progress of the labour; the os uteri being in a normal state before the head of the child commenced its descent into the pelvic cavity.

This induration of the os uteri is met with in parturient women; and is occasionally a cause of obstructed labour, preventing its dilatation sufficient to permit the passage of the child. The treatment that I have employed, in such cases, consisted in venesection, the administration of tartar emetic, and the employment of the warm bath. Bleeding may be advantageously resorted to, where the patient is plethoric, and when she is not worn out by the continuance of the dilating pains of labour; but if she be of delicate habit, or if the labour has been of long duration, venesection will be found to predispose to subsequent uterine hæmorrhage: this remark accords with the experience of the most practical accoucheurs; amongst others, Dr. Ramsbottom, sen. Tartar emetic I regard as a most valuable remedy in these cases: it is a medicine which exercises a peculiar influence on all rigidities of the os uteri; and its effect is so completely to master all resistance, that it permits the necessary dilatation to take place: it is also a medicine so completely under controul, that if we find its nauseating effects too great or too long continued, we have only to tickle the fauces of the patient, and we at once cause her to reject the medicine, and excite re-action of the system by the production of vomiting. When

administered in cases of induration, it should be given in doses sufficient to produce nausea: this nauseating effect must be kept up for some time; the period to be regulated by the altering condition of the os uteri, and by the general condition of the patient. When the dilatable state of the mouth of the womb has been produced, a full opiate should be administered, to maintain its relaxation, and to prevent that spasmodic and irritable condition of the os uteri which so frequently co-exists with induration. A recurrence of uterine action will then generally be successful, in completing the delivery.

The warm bath I have employed in but one case; but so pleased was I with its effects, that whenever I have the opportunity, I shall again order its employment in the obstruction under consideration. The great difficulty, however, is its application when ordered; as in but few houses do the means exist of heating water in so large a quantity, and so quickly as necessary.

Case 6.

I was called, at six A.M., to attend Mrs. ——, married to a second husband, and in labour with her second child. She had been in pain for six hours: on examination, the os uteri was no larger than a sixpence: its anterior limbus was enlarged and indurated. Two years since, she suffered from inflammation of the os and cervix; and from that time, to the period of her labour, she had never been free from a leucorrhœal discharge: this at first was thick; but had become thinner, and had so continued up to the time of her labour. The discharge was always of a thicker consistence for two or three days after her catamenial periods. She had complained of a frequent desire to pass her urine, and of the great pressure she experienced in making the attempt: this symptom, she stated, had continued for some time, existing previous to her pregnancy. I waited with her for one hour; and although she had frequent pains, the os uteri suffered no change. At twelve at noon I was again summoned: the os uteri was but little larger; the induration was regular to the touch, and the posterior lip of the os uteri was very thin: her pains had been, and were, very violent, and she had become

depressed in spirits: her pulse was quick, but weak. I ordered her the tartar emetic, in nauseating doses: in half an hour after the exhibition of the medicine, she complained of being sick: this nauseation was continued for some time, with a gradual favourable alteration in the condition of the os uteri, the posterior edge of which had then become soft, thick, and dilatable: the anterior lip, although indurated and thickened, felt softer. A full opiate was now given, which caused her to sleep for an hour; at the expiration of which period, she was awoke by the recurrence of labour-pains; and the birth of the child, followed by the natural expulsion of the after-birth, took place.

Case 7.

Mrs. W——, aged 34, the mother of six children, desired my advice, under the following circumstances. She stated her labours had always been lingering; that, at her last confinement, she had given birth to twins; since which, she had never been free from irritation about the womb, denoted by pain on marital intercourse, and discharge of a thick creamy consistence, occasionally streaked with blood: this discharge was always more yellow and thicker after the recurrence of the catamenia. At the time of her consulting me, in addition to these symptoms, she had frequent desire to pass her urine, but no pain was felt either during or after the evacuation: her catamenia were regular and profuse, but had never been mixed with coagula. Internal examination detected the uterus enlarged (seemingly from congestion), and the anterior lip and cervix thickened and firm; some pain was experienced by her during the examination.

Ten leeches were ordered to be applied around the vulva, twice a week: Decoct. Papav. o i. c̄ Liq. Plumbi Diacetet. ʒiij. to be injected (tepid) three times a day into the vagina: and the following medicine was prescribed: Pil. Hyd. gr. ij. Ext. Conii. gr. iij. fiat pil. o. n. sumend. Mag. Sulph. ʒfs. Tinct. Hyoscyam. m. xv. Inf. Rosæ C. ʒx. bis in die. The suspension of sexual privileges was recommended. At the end of a week, she reported the discharge was less, and not so thick; neither had there been so much vesical irritation. In three weeks from this time, her symptoms were greatly ameliorated.

I did not see this patient again, until I was requested to do so by a medical friend, who informed me she was then in labour. He stated he had been with her for upwards of six hours, and, although the uterine efforts had been very vigorous, no change had taken place in the dilatation of the os uteri: he desired my opinion on her case, as there existed an enlargement of the anterior lip of the os uteri. On visiting her, and making examination, I found the mouth of the womb of the size of a shilling; the posterior section of the os uteri thin and sharp; the anterior much larger than the posterior, thickened and firm: the head of the child presented; the liquor amnii had passed about an hour previously. The patient was extremely desponding, and fearful as to the result: her pulse was 90, small: her pains recurred quickly, and were powerful. I advised the exhibition of tartar emetic, to full nauseation; and when that was produced, a full opiate to be exhibited. Having another case to attend, I was prevented from watching the result of the practice; but, according to my friend's statement, it was most satisfactory. The induction of nausea soon produced a change in the os uteri: the posterior limbus first became thicker, then dilatable; and, subsequently, the anterior lip lost most of its resistance: the action of the full opiate suspended, for a time, uterine action; and a slight modicum of sleep was obtained. When the pains recurred, the head commenced to pass; and although its passage was attended with more than usual suffering, yet the child was born, by the unaided uterine efforts, in three hours and a half after our consultation.

Case 8.

I once saw a poor woman, in a workhouse, who had borne four children: she was a widow, but was in labour with an illegitimate child. Of her previous history I have no account. Pains had commenced six hours before I visited her: the condition of the os and cervix uteri was very similar to that described in the last case. Having all the convenience at hand, we employed the warm bath: its effect was surprising, for in less than one hour after its employment she was delivered.

b. Abscess.—I have seen one case of abscess of the portio vaginalis of the uterus, which occurred in a patient six months advanced in utero-gestation; and although the abscess evacuated its contents previously to the occurrence of preternatural labour, still the adhesive matter which had been thrown out, and which formed the walls of the abscess, offered a serious obstacle to the dilatation of the mouth and neck of the womb.

Case 9.

I was requested to see Mrs. C., a lady 24 years of age, who was in the sixth month of her second pregnancy, having previously aborted at the fourth month. On inquiry, I found that for a week she had suffered from constant acute pain in the passage and above the pubes, increased upon her assuming the erect posture, moving her thighs, and also during the expulsion of the contents of the rectum and bladder: the pain did not extend to the back or thighs, and there was no vaginal discharge. The pulse was quick and sharp; the skin hot and dry; the tongue furred; and the bowels, which had been opened in the morning, had caused her great increase of suffering. The fæces were very hard.

Twelve leeches were applied around the vulva, and above the symphysis pubis. The decoct. papav. was ordered to be frequently injected into the vagina; and the following medicine was prescribed:

> Ol. Ricini ʒvi. stat. sumend.
> Liq. A. Acet. ℥i. Sp. Æth. Nit. ʒi. Tinct. Hyoscyam. ʒi. Liq. Ant. Pot. Tart. ʒifs. Aq. M. Viridis ℥vs. ft. mist. sumat. coch. ij. ampla 4tis horis.

On the following day, her symptoms were not improved; the pain was not ameliorated, although the leeches had bled freely, but was of a more throbbing character: her bowels had been opened three times, the motions fluid, but their passage was attended with great pain. Twelve more leeches were ordered; the mixture and warm injections to be continued. I was called to her early the next morning; and was informed, that, after passing a very bad night from excessive throbbing and pain, there had been a sudden copious discharge of pus mixed with blood: its quantity could not have

amounted to less than three ounces, and its evacuation was followed by immediate relief. Internal examination was now for the first time permitted: the vagina itself was ascertained to be natural to the touch; but on the right side of the mouth of the womb a large cavity was found: this was the seat of an abscess, which had ulcerated, and burst into the vagina: the opening was so large, that it could not have altogether been caused by the process of ulceration. The vagina was ordered to be syringed several times a day, with warm water. For several days the discharge continued copious, but gradually became smaller in quantity, and thinner, at times being streaked with blood. Examinations, which were occasionally instituted, confirmed the opinion that the abscess was closing from the bottom; and in about three weeks from the evacuation of the pus, it had healed; its seat being readily ascertainable to the finger, by the presence of a cicatrix, and a circle of induration. This lady, unfortunately, was obliged to move some miles from town, having changed her place of residence. The exertion she was compelled to make, superadded to the jolting of the carriage, induced great pain in the loins, back, and thighs, accompanied with discharge of blood from the os uteri. Notwithstanding all the means recommended and usually found of service in preventing premature labour were had recourse to, they proved of no avail; for in three days after the first appearance of these untoward symptoms, discharge of the liquor amnii took place, the uterine contractions returned, were regular, and of an excruciating character. The feet of the fœtus presented: after some considerable time, owing to the non-dilatability of the os uteri, the nates passed, but the greatest difficulty was experienced in the passage of the head. But little assistance could be rendered by traction, as the child was in so decomposed a state, that very little force would have been required to have separated the trunk and left the head in the uterine cavity. At length, during a powerful fit of vomiting, the head suddenly slipped from the uterus, followed by the placenta. Her convalescence was rapid. This lady has again been confined, and but little impediment was offered to the dilatation of the os uteri. Twelve months elapsed between the two labours.

In Bonet. Sepulchret. Vol. II. lib. 3. sect. 38. obs. 2. § 3. a case is recorded which occurred to Dobrzensky. The woman was the wife of a soldier, who was in labour for five or six days; and at last died, worn out with pain. The uterus being inspected, a large abscess, filled with very putrid pus, was found in the neck.

c. Prolongation of the Anterior Lip of the Os Uteri.

This state of parts generally occurs where there is a non-yielding of a portion of the os uteri; and the part more commonly affected is the anterior lip. In these cases, there is generally a small pelvis; and the head passes into the brim, before the os uteri is thoroughly dilated. The anterior portion of the os will then be forced down between the head of the fœtus and the pubes; and is prevented from being freed by the occurrence of successive pains, each uterine effort serving only to render the grasp more tight. The effect is soon perceived by the strangulated portion becoming œdematous; and if within view, it will be found of a dark colour. The uterine efforts are regular, and most commonly violently expulsive, short in duration, and terminate suddenly with a cry of despondency, which is well marked in the patient's looks and expressions. The most remarkable example of this case on record, with which I am acquainted, is published in the 9th Number of the Annals of Medicine, at Paris, 1818. It occurred in the practice of Professor Duclos, of Toulouse. The woman was 34 years of age. In the middle of her fifth labour, she experienced a pain of unusual severity, which caused her to suppose the child was born. When the midwife examined, she found a large fleshy substance protruding from the vagina, between the patient's thighs: an hæmorrhage, with syncope, supervened, and the expellent action of the uterus subsided. M. Duclos examined the patient, four hours after the accident: he found a cylindrical tumor, pendent from the vulva, about four inches long and two thick in the middle, broader at its exit from the vagina than at its lower extremity, of a red venous colour, puckered, resistant, and insensible. M. Duclos was at first embarrassed, to determine the nature of this tumor; but he at length decided it to be formed by an elongation of the anterior

labium of the os uteri. He at first contemplated the employment of the forceps; but he very soon relinquished the idea, and merely used his hand, to second the efforts of nature, and give a favourable direction to the fœtal head, so that it might escape as much as possible the resistance it might encounter from the tumor, as well as to guard the tumor itself from contusion and laceration during the transit of the head through the natural orifice. By these cautious measures, delivery was soon accomplished. The patient was placed in bed: the tumor and genitals were fomented every hour with an emollient decoction. By the next day, the tumor had lost half its volume, and the lochial discharge was abundant: thirty-six hours after delivery, it could only be seen on the borders of the labia: the fomentations were continued, and the secretions took place without fever. On the 18th day the tumor was no longer to be recognised. Two years afterwards, the same lady was again confined, and the subject of a similar intumescence. Two hours after the commencement of labour, the os uteri was of its natural form: in two hours more, the membranes having ruptured, M. Duclos found the anterior lip again elongated. Duclos mentions a third case, occurring in the person of a primipara, 20 years of age: she for four hours had labour-pains sufficiently strong to bear the child, whose head for three hours remained in the same situation; the occiput bearing against the enlarged anterior lip of the os uteri, which was prolonged to such an extent as to project two inches beyond the vulva. Duclos managed this case in the same way as the first, and with the same results: fomentations were diligently employed for five days, and at the expiration of that time the tumor had almost vanished. Naëgle, attending a female with a very good labour, perceived some tumor suddenly slip down between the head of the child and the arch of the pubes, which, at first sight, he thought very similar to placenta. The head of the fœtus passed the os externum without any difficulty, and the child was born alive: subsequent examination discovered this tumor to be the prolonged anterior lip of the uterine orifice.—(*Puchelt*, p. 133.)

The shape of these enlargements is generally round: their length varies: it may not extend to more than an inch, or,

as in the cases of Duclos, and one presently to be mentioned, it may project through the vulva. Their formation appears to depend upon the pressure to which the anterior lip is exposed, in a small pelvis, by the fœtal head: the circulation in the part becomes retarded; the veins cannot return the blood sent into them; effusion into the cellular tissue takes place, and consequent swelling of course, increasing in proportion to the duration of the pressure, and itself, in turn, becoming an obstacle to the onward progress of the child's head. The diagnosis of these swellings, if large, is at first not easy, especially if we have not had charge of the patient from the commencement, or can get but a brief and imperfect account of the os uteri at the commencement of labour. It may be distinguished from polypus, with which it is most likely to be confounded, by there having previously been no symptom of that disease; by its feel, form, and attachment. From the placenta it may be distinguished by the history of the labour, the os uteri being natural at its commencement; by there being no hæmorrhage, or any other symptom to mark the prævíable placenta.

It is by no means uncommon to meet with those cases of prolonged anterior lip in a minor degree. The labours in which this condition is manifested are generally tedious, and there exists more or less non-yielding of the os uteri from the commencement. If, with the view of relaxing the os uteri, the ant. pot. tart. be exhibited, this prolongation does not usually occur; but where it is formed, when each successive pain serves but to increase its size, and where the patient's looks and expressions are assuming a character of despondency, the best plan of treatment that I am acquainted with, and one which I almost universally find successful, is the keeping two or three fingers fixed against the swollen anterior lip during the pains: these prevent further elongation; and I have generally found, that, after judicious pressure has been maintained for some time, the strangulated portion will slip up, and the head descend. By some writers we are recommended to puncture the swollen os uteri. I have performed this operation but once; where the elongated lip protruded through the os externum was of a dark colour, and very œdematous. In such cases, after delivery, fomen-

tations should be persevered in for some time: the one I employ is the decoction of chamomile-flowers, to which a small portion of rectified spirit is added. The only inconvenience I have found to follow the prolongation of the anterior lip is the retention of the urine for two or three days, rendering the introduction of the catheter necessary. The state of the bladder must be attended to during labour, whenever this elongation exists to any extent.

Case 10.

I was requested, by a note, to go to the assistance of a medical friend, who had been with a female in labour for seven hours. He told me her age was 33, and that it was her first labour: he stated, that the os uteri, from the commencement, had been very unyielding, although her pains had been vigorous and frequent: the liquor amnii had passed early in the labour, and the head of the child presented. He added, that having left the patient to get some rest for an hour or two, he was surprised, on his return, to find, upon examination, a tumor at the anterior part of the os uteri, between the arch of the pubes and the fœtal head, which he imagined must be a polypus descending from the uterus: her uterine efforts became more vigorous, and, with each return of pain, the tumor seemed to descend still further. When I visited this patient, the swelling was visible through the os externum; it was insensible, of a dark port-wine colour, and œdematous: careful examination enabled me to pronounce it to be the elongated anterior lip of the os uteri. At this time the pains were of a most violent character; her looks were fierce, her cries desponding, as the tumor evidently impeded the passage of the child. I recommended that several punctures should be made, to evacuate the serous fluid and blood, by which a great portion of its bulk was made up. My friend consenting, it was done, with the effect of causing rapid diminution of its size: the hand was employed to direct the fœtal head, so that it should press as little as possible upon the tumor. In about one hour a living child was expelled, and the labour was quickly completed. Fomentations were directed to be injected into the vagina several times a day. The only inconvenience the patient laboured

under, was retention of the urine for three days, which rendered the introduction of the catheter necessary.

Case 11.

I attended a patient, 28 years of age, in her first labour, in whom there was an unyielding condition of the os uteri, for which I prescribed a full opiate. Soon after its exhibition, I left her, to take charge of another case; and during my absence the anterior lip became so swollen and elongated, as to project a considerable distance into the vagina, and impede the passage of the urine. A catheter was introduced, and a pint and a half of urine drawn off. Firm but judicious pressure was made upon the elongated lip, during the pains: at length, after the most violent efforts of an acutely-agonizing character, the head passed, and the labour was speedily terminated. This case also, for two or three days, required the introduction of the catheter.

d. Hard or Fibrous Tumors of the Uterus.

Under the term Hard or Fibrous Tumors of the uterus I include those hard, circumscribed, indolent bodies of a yellowish or ash-grey colour, formed of fibres of tough filamentous laminæ, arranged in concentric layers and fasciculi. When these tumors are divided with a knife, they present a laminated or radiated semi-cartilaginous character. Sometimes their appearance is granular, as if composed of smaller tumors: occasionally, cavities, containing fluids of various densities, or solid bodies, are found occupying the centre. It may be a coagulation, or a calcareous deposit; or, as in a case related by Dr. Ingleby, in which fibrous tumor of the cervix co-existed with pregnancy, and where embryulcia was performed to accomplish the delivery, the centre of the tumor may contain a glairy fluid. Occasionally, these tumors continue to increase, until they become cartilaginous: calcareous depositions take place in their substance; and they are often ultimately cemented into a mass of carbonate and phosphate of lime, sometimes so hard as to admit a polish. Most writers upon these tumors do not regard them as malignant; but Dr. Hodgkin, in Vol. I. of Guy's Hospital

Reports*, states "that these growths essentially possess the mixtures of compound adventitious cysts, to which the malignant heterologue formations are to be referred."—Dr. Ashwell, in Vol. I. of the same publication†, is of opinion, "that they occupy a much lower place in the scale of malignancy." These tumors are generally formed in the cellular membrane, under the peritoneal coat, or between the layers of the proper tissue of the uterus: occasionally, but more rarely, they are generated beneath the mucous lining; and a tumor so formed is generally accompanied with hæmorrhage of a profuse character. They may be situated in any part of the organ, at the fundus, sides, body, or cervix: the situation, of course, has a considerable influence in those cases associated with pregnancy: thus, a fibrous tumor of the uterus, growing from the fundus, and projecting into the abdomen, may not interfere with the progress of labour; while a smaller tumor, situated either at the anterior or posterior aspect of the cervix, will render artificial assistance necessary, from the impediment it will offer to dilatation and to the passage of the child. These tumors are met with of various sizes, from that of a pea to that of the pregnant uterus, and some have weighed nine pounds. One case is recorded where the tumor weighed forty pounds. The form of these tumors is more or less round: they may occur singly, or several may be present in the walls of the uterus. Sometimes the connection of these tumors with the uterus is by a narrow band, or an universally lax cellular tissue; so that if attached to the fundus, they will fall to the side upon which the patient may lie; one very marked case of which was under my care: in it, I had the opportunity of confirming the diagnosis by a post-mortem examination. In some cases, these tumors are projected through the os uteri and vagina, and so constitute a variety of uterine polypi. In cases of hard tumor associated with pregnancy, the greatest attention should be paid to determine the exact seat of the tumor, its size, &c., in order to decide upon the line of practice it is necessary to pursue. The causes of the formation of these tumors are not known; they, however, occur more frequently

* P. 334. † P. 149.

in the unmarried and sterile, than in the marital and prolific, and generally in females who have reached the middle period of life. Their diagnosis is sometimes difficult, although there may be certain symptoms, as hæmorrhage, difficult menstruation, &c., attendant upon them: if, however, the patient be tolerably thin, and the tumor or tumors grow from the fundus uteri, their seat and nature may be determined; but if the tumor occupy the lower part of the body or cervix, a vaginal and rectal examination must be instituted for its detection: and it occasionally happens, that when no tumor is ascertained by a careful vaginal examination, the finger, passed into the bowel, will readily detect the presence of one of those bodies situated on the posterior aspect of the uterus; counter-pressure being made at the same time over the abdomen. When the tumors have a moderate degree of mobility, as in the case previously referred to, or where the tumor is situated above the groin, as in the case related by Dr. Ingleby, p. 134, it is apt to be mistaken for ovarian disease; but the previous history of the case, and careful internal and external examination, with the presence or absence of alteration in the long axis of the uterus and pelvic brim, will assist us in assigning the tumor to its proper seat. Where pregnancy does not coexist, these tumors seldom produce any symptoms to lead to their detection, independent of the swelling, unless by their presence they obstruct the passage of the urine and fæces. In one case I had under my care, retroversion of the uterus was occasioned by the formation of a large fibrous tumor in the posterior part of the fundus, causing great suffering to the patient, and requiring constant attention to be paid to relieve her of the retained urine and fæces. But if pregnancy take place when the uterus is affected with one or more fibrous tumors, they will perhaps remain passive, or escape notice, until after delivery: such was the case in one lady to whom I shall presently refer. Dr. Montgomery, at p. 182 of his admirable work, states, he is in the habit of attending two ladies, one of whom has had eight children, and the other five, with easy labours and good recoveries; the former lady having two fibrous tumors, as large as walnuts, on the anterior surface of the fundus uteri; and the

other having one tumor of the same kind and size over the entrance of the Fallopian tube: these tumors are not perceptible till about the fourth month of pregnancy, and have never given any trouble. In the London Medical Gazette, August 29, 1835, a case is recorded which occurred at Bristol, in which no less than twelve of these tumors were attached to the uterus, some of them as large as oranges; and where the labour terminated fatally, from rupture of the vagina, under peculiar circumstances. Occasionally, however, the supervention of pregnancy induces increased action in the tumor, as indicated by pain, tenderness, and increased swelling. In these symptoms the constitution participates; the stomach becomes irritable; the intestinal functions deranged; the pulse becomes frequent; and the patient emaciates. As effects of the tumor, I must not omit to mention abortion, and occasional deformity of the fœtus, or monstrosity. The prognosis in cases of pregnancy, associated with fibrous tumors, must at all times be doubtful: much, however, will depend upon the situation of the tumor or tumors, and the obstruction that it or they may cause to the passage of the child, and to the probable injury that the tumors themselves will experience, when the uterus is called into action at the full period of utero-gestation. For Dr. Ashwell's opinion upon these subjects, see his Paper in the Guy's Hospital Reports*. One of the cases to be related rather confirms the opinion expressed by that gentleman. In a case recorded by Dr. M. Hall, in the Second Volume of his Principles of Diagnosis, there was profuse menorrhagia during twelve years of unfruitful marriage. The patient became pregnant; the tumor was distinctly felt in the parietes of the distended uterus; parturition was accomplished well; but the fibrous tumor became inflamed, and this led to a fatal result. Similar cases are to be found scattered in the various productions of authors who have written upon this subject.

Treatment. — If there be increased action or sub-acute inflammation in the tumor before delivery, the occasional application of leeches, the recumbent position, the use of

* Vol. I. p. 300.

gentle aperients, anodynes, and mild unstimulating diet, with fomentations, are the measures that should be resorted to, for its treatment. If the tumor be of small size, if it be attached to the fundus uteri, or if it be so located as not to impede the progress of the child, the case should be left to nature. Many cases are recorded where such tumors have not interfered with the process of labour, and have not been discovered until a post-mortem examination was made, even though they had attained a considerable size. In one case recorded by Dr. Ingleby, occurring in a woman who died from apoplexy eight days after delivery, a tumor, of the size of an orange, was found. Many patients have died from uncontrollable hæmorrhage after delivery, induced by the presence of these tumors; as in the case of Professor d'Outrepont, published in the Archives de Médicine, Mai 1830.

Some writers have recommended the removal of these tumors, by the operation of excision. Lisfranc has removed them, by making incisions through the cervix. If the tumor be limited to the portio vaginalis of the uterus, the operation of removal may be resorted to. An interesting case of this kind is related by Dr. Ingleby, which was removed by Mr. Evans, of Belper; but, as a general rule, it may be affirmed, that while these tumors are within the cavity, they will not admit of removal; but if they become pediculated, and pass through the os uteri, they may be treated in the same way as polypi uteri.

The operation of puncturing these tumors is of little avail, as, for the most part, they are solid: if they contain fluid, it is generally of a glairy, gelatinous, or grumous consistence; and the evacuation does not give rise to sufficient collapse to allow of the transmission of the child, when an obstacle sufficient to impede its birth is occasioned by the tumor. The operation of turning is useless, when fibrous tumors occasion such an obstacle to the birth of the child as to render artificial assistance necessary; not to mention the difficulty experienced in introducing the hand into the uterus, to grasp the feet. If called to a patient in labour, in whom such an obstacle to the passage of the child exists, we must make a careful examination, to ascertain whether we can safely leave the case to the natural efforts; but if we

are convinced that the unaided powers of the womb will not be sufficient to expel the child, we must then determine whether the embryospastic or embryotomic instruments must be employed to complete the delivery. In such complications, we must not allow the labour to proceed too long before such assistance is given; as not only may the tumor be so bruised and compressed, that inflammation of its structure, followed by suppuration or gangrene, may take place, but also the uterus itself may give way; as in the case recorded by Fabricius Hildanus, c. 1. obs. 67. Sometimes the tumor is so large, that embryulcia cannot be performed; or, if the head is perforated, the child cannot be extracted through the small space. A case of this kind is related by Dr. Montgomery, at p. 188 of his valuable work on the Signs and Symptoms of Pregnancy.

Section of the symphysis pubis, recommended by some French writers, has not been practised in this country; and if performed, is not likely to be of any avail.

Induction of Premature Labour.—If a patient affected with a fibrous tumor become pregnant, and if that tumor be so situated, or be of such a size, that it will impede the progress of labour, it becomes a matter of great moment to determine whether or not the operation for the induction of premature labour should be performed. This operation, recommended by Akakia*, in his Treatise on Female Diseases, has received the sanction of Dr. Ashwell; for whose opinion see Guy's Hospital Reports, Vol. I. p. 300.

Case 12.

In July 1841, I attended Mrs. P. in labour with her first child: her labour was rapid, the child born with the nates presenting: upon placing my hand over the abdomen, after the birth of the child, to ascertain whether a second fœtus was present, I found the uterus well contracted, but was surprised to feel a tumor of the size of a walnut attached to either cornu of the uterus. The laxity and thinness of the abdominal parietes enabled me closely to examine these tumors: they were harder than the viscus itself, and broader

* See Spachii Gynachia, p. 783. lib. ii. cap. 4. De Abortû.

at the uterine end: firm pressure between the fingers caused no pain. The placenta was expelled naturally: the discharge, both at the time of labour and during her convalescence, was not more in quantity than natural. The only inconvenience this patient suffered, was a degree of tenderness experienced when the tumors were pressed upon: this lasted eight or nine days after delivery: at this time they became smaller; and when I examined the abdomen four weeks after delivery, I could still feel them, about the size of cob-nuts. She had experienced no symptom that led her or myself to suspect the presence of these tumors. Her catamenia had been regular, and she had never suffered from hæmorrhage.

Case 13.

A woman who had been under my care for some months with hard tumor of the cervix uteri, accompanied with menorrhagia and leucorrhœal discharge, contracted marriage. Within three months she became pregnant: she suffered severely from sickness, and had all the signs of early pregnancy well marked. At the fifth month she, fortunately, miscarried. There was a considerable loss of blood, and the debility caused thereby was treated by tonics. In nine months after her miscarriage, she again conceived; and her pregnancy went on until the sixth month, when premature labour took place: the discharge of blood was again inordinate. On the third day after her delivery, she was seized with rigors, followed by considerable pain and tenderness in the region of the uterus, especially at the seat of the tumor. This was treated by leeches, poultices, and the administration of calomel and opium; and after a long and protracted convalescence, she recovered. During the existence of the pain in the uterus and tumor, the discharge, which had been excessive, stopped. After her recovery, the tumor was found to be considerably larger than at the time of her first abortion.—I have not been able to learn the issue of her case, as she has left the country.

Case 14.

I was requested to see a woman, said to be pregnant, and attacked with symptoms of premature labour. On my

arrival at her house, I found the child expelled: the lower extremities were deformed, being very much curved; they seemed as if they had been moulded upon a round body. This woman was 32 years of age: had been married twelve months. For three years she had suffered from occasional menorrhagia and leucorrhœa. After the evacuation of the uterus, a hard tumor was readily felt on the anterior and right side, at the juncture of the body with the cervix, of considerable size. Although the hæmorrhage attending the labour and the lochia were more profuse than common, the patient recovered without any particular pain or tenderness in the uterus or the tumor.

Case 15.

Mrs. L —— was attended in her first confinement, which occurred at the eighth month, and was lingering: the membranes gave way without pain; and the os uteri was dilated with difficulty. The presentation of the child was natural. On the third day after delivery, she was attacked with rigors, followed by great pain and tenderness in the region of the uterus, which, notwithstanding the most active and prompt treatment, proved fatal on the seventh day. A post-mortem examination detected the presence of two hard tumors imbedded in the substance of the uterus, the presence of which had not been suspected. On making a section of them, the structure was found to be breaking down: it was of a dirty yellowish-green colour, and much softened. The uterus itself presented no abnormal appearance.

e. Polypus, or Polypoid Tumors.

Under this division, I include all pediculated tumors not malignant, whether of a cellular, glandular, or fibrous texture, which, by their attachment to the uterus, impede or prevent the progress of labour. Polypi may arise from any part of the uterus: they are met with projecting from the fundus and body, and growing from the neck and mouth. In all these situations, they are found attached by a pedicle, varying in length and thickness; and, by their presence, prevent the due contraction of the uterus, or impede the passage of the fœtus. The form of polypi is generally pear-shaped,

although they sometimes are as round as an orange; and I have occasionally seen them of the form of a gherkin. In size, they differ, varying from that of a currant, or almond, to that of a fœtal head: the weight of one described in Loder's Journal, Vol. IV. Part II. p. 295, was seven pounds.

Nothing certain is known concerning the causes of these formations. Chelius, in his Second Volume, § 2074, p. 415, assumes that the growth of the mucous membrane is changed by some cause, through which these peculiar formations are produced, either from the parenchyma, or from the tissues lined with mucous membrane. It is not my present object to enter largely upon the pathology or the symptoms of polypus uteri, but only to investigate the disease as far as regards its complications with pregnancy. The diagnosis of polypus, under these circumstances, is not at all times easy. Dr. Merriman, in his valuable "Synopsis," p. 235, relates a case attended by a well-informed pupil of the Middlesex Hospital, where the Doctor himself, although possessing all the accuracy of tact which a long and large experience had given him, supposed he was feeling the head of a premature fœtus enclosed in the membranes, until he ascertained, by a more careful examination, that it was a polypous tumor, depending from the os uteri by a pedicle about the thickness of a thumb. Smellie also fell into the same error: (see his case.) Polypus, however, is much more likely to be mistaken for other tumors; the most common of which, perhaps, is the "vivaces" of Levret: these are fungous excrescences growing from an ulcerated surface, and are covered by no membrane: their texture is more soft than polypus: they seldom descend into the vagina, having no stalk; and they can easily be felt within the orifice of the os uteri. Neither must the cauliflower excrescence of Sir C. M. Clarke be mistaken for polypus: the former is covered by a fine transparent membrane; is of a bright flesh colour, insensible, always attached to the cervix uteri; grows from a broad base; and is attended by a watery discharge, and frequent hæmorrhages. After death, it shrinks almost to nothing. It destroys life, like polypus, by the profuse discharge, and frequent hæmorrhages. Polypus, on the other hand, is covered by the mucous membrane; is of a mottled colour; is also insensible; grows from a

narrow stalk; is also attended with watery discharges; and is detected after death, although smaller than during life. During the progress of cancer, fungating polypoïd growths are frequently found, which may be mistaken for polypus, unless due care is taken in the examination; but then there will be other symptoms to assist in the diagnosis, especially a greater or less degree of induration of the surrounding tissues *. The prognosis of polypus, associated with pregnancy, must at all times be doubtful: for, in the first place, it renders the continuance of utero-gestation uncertain, as in Case 16: 2dly, it may be so large, and offer so serious an obstacle to labour, as to demand instant removal: and 3dly, by preventing the subsequent contraction of the uterus, it may give rise to dangerous and even fatal flooding: (see Case published by Dr. Churchill, in the Fifth Volume of the Dublin Journal; also in Cruveilheir): lastly, it may occasion metritis: (see Case 19.)

Treatment.—If the polypus be detected in the earlier months of utero-gestation, or if its presence be not ascertained until the completion of pregnancy or during the process of labour, or especially if delivery be prevented by its size, it must be removed. An interesting case of polypus obstructing labour is related by Dr. F. Ramsbotham; where the tumor was expelled between the thighs, but where he and his father, on due consideration, determined to delay the operation of removal "until the changes consequent on delivery were accomplished": and it was not until the lapse of nearly four months that the tumor was tied. Dr. Davis also remarks, it would be right "to delay the operation of extirpation until after delivery, where the polypus is of moderate size, and has a neck of unusual thickness." In his "Obstetric Medicine," he relates a case where the ligature was applied directly after delivery; but it produced a fatal effect. On the other hand, Dr. Gooch, after relating, at p. 281, the particulars of a case which occurred in the practice of Mr. Borrett of Yarmouth—and where, after

* Siebold's Frauenzimmer-krankheiten, Vol. I. p. 760. Also, Wigand in Stark's Archiv. B. I. St. i. p. 130. 1799.

delivery, pains supervened so as to force the polypus out of the vagina—the exhaustion, suffering, and great efforts, terminating in death a few hours after delivery—asks what would have been the result, if a ligature had been applied round the stalk of the tumor, and its body cut off just below; as in Case 5, which occurred in the practice of Mr. Butler of Woolwich, and in which the operation of excision was performed after the ligature had been applied. In most cases, the ligature and excision should be conjoined: but still, delay in the performance of the operation is advisable until the uterus shall have perfectly recovered itself, unless contra-indicating circumstances demand the prompt removal of the tumor. Care should be taken that polypoïd tumors should not be permitted to operate as impediments to successive births; as in a case communicated by Mr. Fordham, and published in the 26th Volume of the London Medical and Physical Journal, where the patient had been married ten years, and during that time had had four children, all still born, the polypus having protruded at every labour.

In some cases of labour impeded by polypus, a skilful operator may, by the assistance of the forceps or vectis, succeed in delivering the child alive; but, in my opinion, where the tumor is too large to admit of delivery by the embryospastic instruments, it is a better practice to tie a ligature, if possible, around the neck of the tumor, and excise it below the ligature, than to perform the operation of embryulcia. There are four methods of removing polypi: 1st, by torsion; 2dly, by the application of a ligature, and the consequent sloughing of the tumor; 3dly, by excision; and 4thly, by the application of the actual cautery.

1. *Removal by Torsion.*—As the natural efforts have been sufficient, in some cases, to effect a separation of the polypus, (see Levret, Clarke, Ingleby, &c.), and as they have occasionally been expelled by forcing down and by various concussions of the body, it was expected that the operation of torsion would, of itself, be sufficient to effect the separation. This operation is readily performed, by raising the polypus with the finger and thumb, or with a suitable pair of forceps, and twisting it gently round, until the stalk breaks:

it is then to be withdrawn. If the stalk is found to be too thick, or if it will not yield, one of the other modes of separation must be had recourse to. Polypi with a slender stem, especially those of the cellular kind, are best adapted for this plan of removal. Its recommendations are, the absence of hæmorrhage and discharge, and the freedom from that great caution in moving the body, so necessary where the canula has been employed. If it be ascertained that flooding after delivery depends upon a polypus in the womb, it is advisable to introduce the hand, if possible, and separate the growth by the operation of torsion. The only treatment necessary after the operation, is, to syringe the vagina two or three times daily, with warm water, or the decoctum anthemidis.

2. *Ligature.*—The removal by ligature, in the majority of cases, is the preferable operation: by its employment, all chance of hæmorrhage is removed; but although, in by far the greater number of cases, the stalk soon separates, yet in some few it has evinced no such disposition; and in one case on record, the irritation depending upon the discharge taking place from the semi-putrescent mass, was attended with very serious consequences. Another advantage of the ligature, as demonstrated by Dr. Gooch, is this—it may be applied upon any part of the stalk; for, in accordance with a law of nature, an effort is made for its separation from the living parts; and the part which remains, instead of being prolonged into a fresh polypus, invariably sloughs away. Obstetric writers and practitioners recommend ligatures of various kinds, as waxed silk, catgut, silver wire, silk wrapped round with wire, &c.; but no ligature, in my opinion, is preferable to whipcord: it has been shewn by Mr. Walne, in the Medical Gazette, July 1836, that whipcord, when moistened, increases in thickness, and diminishes in length: thus, such a ligature, after its application, and when bathed in the discharge, will tighten itself very considerably. The canula I employ is the one in use at Guy's Hospital: it consists of Gooch's canula, to the outer end of which a rack has been superadded, so that the ligature may be gradually tightened from time to time by turning the rack, instead of unwrapping the end of the ligature and drawing it tighter, as was necessary in the original instrument. After the appli-

cation of the ligature, if practicable, it should be tightened daily; and due heed must be taken frequently to inject into the vagina tepid water, to which some solution of the chloride of soda has been added, or some tepid decoction of chamomile flowers.

3. *Excision.*—The operation of removal by excision has many supporters of great talent; amongst others, Osiander, Simson, Siebold, Dupuytren, Arnott, Brodie, &c. Dupuytren is said to have removed 200 polypi in the course of his practice, and in two instances only did hæmorrhage occur. Velpeau has excised polypi eight times without hæmorrhage. The occurrence of hæmorrhage is the only objection, so far as I know, to the operation, which in itself is exceedingly simple: the patient being placed on her back or side, and the polypus being seized with a hook or pair of forceps, is to be drawn down without the external parts: when so brought to view, it is to be divided by the stroke of a bistoury, or by means of a pair of scissars. In some instances, the polypus is situated externally; whilst in others, the natural efforts of the patient are sufficient to cause its protrusion. If the vaginal orifice be small, so that the tumor cannot be protruded, we must divide it from its stem by a pair of blunt-pointed scissars. If there be pulsation in the stalk of a polypus, or if the polypus has only just descended through the os uteri, the operation of excision must not be resorted to. In polypus complicated with pregnancy, it is well to combine the two operations, especially where the operation is performed during the close of the period of utero-gestation, or at the time of labour: the stalk of the polypus should be tied, and after the lapse of twenty-four hours, if possible, the tumor itself should be removed below the ligature.

4. *Actual Cautery.*—It is needless to dilate upon this method of removing polypi, as it is a method of operating not practised, nor likely to be employed in this country. Siebold, however, relates a case in which the operation succeeded to perfection.

Case 16.

I was consulted by a lady who had previously borne children (her last being three years of age), under the following circumstances. She stated, her labours had been quick and

natural, and that she had nursed her youngest child for ten months. After weaning it, her catamenia returned, at regular intervals; and during the last twelve months, she had remarked that they continued for a longer period than formerly, and towards their close were generally mixed with blood, as indicated by the presence of coagula. For six months there had often been serous discharge from the vagina, more especially before and after the return of the menses. Three months before my visit, she expected she was pregnant, having all the signs of early gestation which had marked her previous pregnancies. As she had once miscarried, she thought she was then suffering from the premonitory symptoms of abortion, as indicated by the discharge of blood, attended with pain in the back, stomach, and thighs. The areolæ around the nipples were enlarged and dark, and the glandulæ elevated. Rest, acids, anodynes, cooling drinks, and those measures calculated to prevent abortion, were prescribed, with the effect of restraining the discharge and relieving the pains. For seven weeks from this period, no discharge of blood took place; her health became much improved; and the only circumstance she complained of, was, that the symptoms of her pregnancy kept her in a state of great suspense, as she was confident she had experienced all those sensations she had undergone in the early period of her former pregnancies; while at the same time, since the occurrence of the hæmorrhage, no other signs of that condition had developed themselves, although there had been no return of the catamenia.

I was hastily called to her one morning; and found she had passed a very restless night, from pain in the back and loins, extending to the abdomen and thighs;—that there had been a discharge of blood, at first sparing, but which for the last two or three hours had become profuse: her face was pallid; her pulse small and quick; her extremities cold; her countenance anxious; and she expressed her fears respecting the result. Having administered to her a few drops of sp. am. comp. in water, I proceeded to institute an examination; when I found growing from the posterior and right side of the cervix uteri a polypus of moderate size, with a slender soft stalk: the uterus was large; and it was low down in the pelvis, which

was of capacious dimensions. As the patient's strength was greatly reduced, and as bleeding was still going on, I determined to attempt the removal of the tumor by torsion; that operation, in my opinion, being preferable, by its preventing any loss of blood, and subsequent irritation, which the ligature might probably occasion. To accomplish this operation, I grasped the tumor with the finger and thumb of the left hand; and having twisted the tumor round a few times, it separated, and proved to be a polypus of the cellular kind. On carefully examining the cervix uteri, the seat of the attachment could readily be felt; and I also found that there was still something within the uterine cavity, its presenting portion giving to my finger the sensation of a bag of membranes. The pains continued, although the discharge was not profuse; and on making a subsequent examination, some body was found protruding through the os uteri, which at length was expelled into the vagina, from which I removed it. It proved to be an ovum, containing a fœtus of about three months' development. This patient's convalescence took place, without any untoward symptoms.

This case is interesting, from the length of time the ovum was retained in the uterine cavity (seven weeks). After the patient lost all the symptoms of pregnancy, her mammæ, which had been enlarged and painful at the time of her delivery, were shrunken and small; and the areolæ, which had been dark and large, were faded. Most probably the polypus was the cause of the incarceration of the ovum. The condition of the patient, the character of the polypus itself, and the result, in my opinion justify the performance of the operation at the time; and I think the method of operating was the best that could be adopted, under all the circumstances of the case.

Case 17.

In May 1839, I was requested to see a female who had just been delivered, and in whom there was a polypus of the size of a duck's egg, lying in the vagina, near the external part. This female had been confined at the seven months: the nates of the child had presented; and the tumor had not

caused any great obstruction to the labour, the patient's pelvis being remarkably large. My opinion was desired as to the propriety of removing the tumor at once. To this plan of treatment I objected, for the following reasons:— I considered that the polypus, being nourished by the same vessels as the uterus, would now have a smaller supply, according as the supply to the uterus became smaller, and consequently it would diminish in the same proportion. I also thought it better to wait, if possible, until the patient had recovered from her puerperal state, as during that condition she was most likely to suffer from any additional irritation caused in the womb or its vicinity. This advice was acted on; and it was not until seven weeks from the period of her delivery that hæmorrhage occurred, which determined us to apply a ligature around the polypus. In six days it sloughed off, and the patient ultimately did well.

Case 18.

My friend Mr. Roberts, of Finsbury Circus, has given me the following particulars of a case he attended. The lady was pregnant with her second child, and had discovered the tumor only two days before Mr. Roberts saw her. On examining her, he found a polypoïd tumor projecting beyond the vulva, as wide as his hand, soft, insensible, tense; and although somewhat compressible, it filled the vagina. Mr. Roberts ascertained that it was attached to the right side of the os uteri. On the Friday, when labour was in its earliest stage, he determined not to interfere, but to wait; an opinion in which Mr. Kingdon, who had been called in consultation, acquiesced. During the Friday and Saturday, the pains were slight, and the progress of labour inconsiderable; but he noticed that the tumor, at its posterior part, became discoloured, and somewhat shrivelled; and on Sunday, this appearance increased. Labour became more active; the os uteri dilated; and the child was expelled at two o'clock. After delivery, this polypoïd tumor was still felt, although it had receded into the vagina. At the end of a month, a very slight remnant of the tumor remained.

This is a very interesting case: it occurred to a general

practitioner of high standing in the profession, and of great obstetric experience, and who was not likely to form any erroneous diagnosis. The tumor most likely to be mistaken for it is the prolongation of the os uteri; but the stage of the labour when this tumor was first detected, and, in fact, its existence before labour took place, satisfactorily prove it was not an instance of elongated os uteri.

Case 19.

A lady, a friend of mine, was attended by a practitioner residing in the suburbs of London, with her fifth child: her labour was lingering, and throughout its whole course there was more or less flooding. She had not had a child for some years. After the expulsion of the placenta, the hæmorrhage still continued, although the uterus remained firmly contracted. A careful examination detected a small polypus within the os uteri, to remove which several unsuccessful attempts were made. On the third day of delivery, acute metritis supervened, and in fifty hours from the attack the patient died.—No post-mortem examination was permitted.

MALIGNANT DISEASES ASSOCIATED WITH PREGNANCY.

f. Carcinoma Uteri.

It is very remarkable, that so serious and malignant a disease as carcinoma should not prevent the possibility of conception. Many cases are recorded of pregnancy combined with both the scirrhous and encephaloïd forms of the disease. By Zeppinfield, in his "Diss. system. casum carcinomatis uteri cum graviditate conjuncti;" Siebold De carcinomate uteri; Levret, Mad. Lachapelle, Mauriceau, Paul Portal, Kilian, Exton, Mad. Boivin, Montgomery, F. Ramsbotham, and others, cases are reported in which pregnancy occurred when the uterus was affected with this disease in its several stages.

Scirrhus uteri may be known by the tumor being firm, more or less round, either springing from the surface of the os or cervix uteri, or imbedded in the uterine tissue, the

surrounding structures feeling healthy; or the whole of the cervix may be enlarged and hardened; or, if examination be made at a more advanced period, portions of the scirrhous mass will have passed into an unhealthy, suppurative, and ulcerated state, marked by the occurrence of frequent hæmorrhages; the discharges being of a thin and ichorous character. Very frequently, when ulceration commences, numerous fungoid vegetations spring forth, which not uncommonly ulcerate also. Scirrhus, when examined, bears a strong resemblance to the rind of bacon: it is glassy, semi-transparent, of a bluish-yellow colour, firm, and not vascular. Not unfrequently, we find the disease assumes the encephaloïd form, at first resembling lobulated cellular matter: this, when viewed, is of an opaque dead-white colour, and is abundantly supplied with minute vessels. This form of the disease is rapid in its growth, acquires a great size, and, when it becomes softened, assumes a pinkish-white colour and creamy consistence: the hæmorrhage that takes place from such tumors is of an alarming nature. So far as my observations have extended, the encephaloïd form of carcinoma is more frequently found in younger females than the scirrhous variety.

The part of the womb most frequently attacked by scirrhous disease is the neck. Some writers, as Sir C. M. Clarke, Blundell, &c. attribute this to the cervix being the most glandular part: others, as Wenzel, admit the fact, but explain it by stating the cervix is more exposed to injury. Puchelt has collected thirty-two cases of labour complicated by scirrhus uteri, where the seat of disease was as follows:

The whole uterus was scirrhous in	1 case.
A large portion of the organ . .	5 cases.
The neck of the uterus	11 ...
The neck and mouth	5 ...
The mouth alone	6 ...
The left side	1 ...
The body	1 ...
The fundus	2 ...
Total . . .	32 cases.

The diagnosis of this disease is accomplished by a careful investigation of the symptoms and appearances of the patient, and by the institution of internal examination. When the scirrhous tubercles are but few in number, of small size, and recent development, the external symptoms are not of such a nature as to excite suspicion: there may be, however, central lancinating pains; and difficulty may be experienced in the passage of the urine and fæces, depending upon the situation of the scirrhous deposit: but it is rare to find symptoms manifesting themselves, which lead to the suspicion of the disease, until ulceration has occurred, when the stomach will sympathize: the patient's appetite fails; she loses flesh; there is a dark areola around the eyes; the pain is of a most severe lancinating character—more severe, as far as my experience serves, in the scirrhous than in the encephaloïd form, the patient describing the pain as similar to that produced by the plunging of a sharp instrument into the body: these attacks of acute suffering generally occur in paroxysms; and are centrally situated, shooting down the thighs. The hæmorrhage, which occurs as soon as ulceration takes place, is frequently of an alarming character: in some cases, it is the first symptom that awakens the fears of the patient, and is even found where there has previously been no pain to lead the patient, or her medical attendant, to suspect any disease of the uterus. The amount of hæmorrhage varies considerably: as a general rule, it is more profuse in the encephaloïd form of the disease than in the scirrhous. These fluxes of blood intermit with the flow of a fetid dirty-white, dark-brown, or greenish-black discharge, of an acrid character, excoriating the soft parts over which it passes. During the evolution of the symptoms, the development of the constitutional disturbance takes place in the same ratio: the heart's action becomes hurried; the pulse is small, quick, and wiry, becoming still further relieved by the hæmorrhages: there is fever of a more or less hectic character, marked by nocturnal sweats: there is very frequently diarrhœa; at other times, almost insuperable constipation: there is great thirst, and the tongue, in the advanced stages, becomes dry and glossy.

So far, the external signs of the disease will assist us in

forming our diagnosis. But it is by internal examination that the suspicions caused by the development of certain symptoms must be verified or disproved. The scirrhous tumor of the os and cervix before ulceration has commenced may be distinguished from induration the result of chronic inflammation, by its being less red, not so vascular, more lobulated, and by its hardness. From fibrous tumor it may be known by its increased hardness, its being more lobulated, and by the thickening of the uterine tissues around the deposition. When ulceration takes place, it may be distinguished by its greater depth, surrounding hardness, immobility of the uterus, copious hæmorrhages, and the nature and character of the discharges. The encephaloïd tumor is known by the soft fungating growths proceeding from the os uteri, and by the hæmorrhage caused by an internal examination, by the surrounding firmness of the uterine tissue, the immobility of the uterus, &c. This form is distinguishable from polypus, and pediculated fibrous tumor, by the firm feel of the latter, their more or less pyriform form, their smooth and regular surface, and by the examination not causing any increase in the hæmorrhage: whereas if there be encephaloïd disease, the polypoïd growths will not be so regular in form, they will be found very soft in some parts, harder in others: they are not so smooth, more sensitive, and vaginal examination almost invariably induces hæmorrhage. The prognosis, as to the ultimate recovery of the patient, is at all times most unfavourable. Into this question, however, it is not my present purpose to enter. In treating of the pregnancy associated with carcinomatous disease, I have to consider, 1st, the prognosis with respect to the mother, and, 2dly, the prognosis with regard to the child. With respect to the mother, much depends on the method of delivery. If the scirrhous formation be in its early stage, if it be small in size, and if the patient's constitutional powers have not been too much lowered, the woman will generally go through her labour; although such process may be rendered lingering, by the pressure of such a tumor: and even when the child has been delivered with instruments, the patient will, for the most part, recover the immediate shock of parturition, to die at an earlier or later period,

from the effects of the malignant disease. But it must be allowed, that all labours, whether terminated naturally or artificially, cause the progress of the malignant disease to be more rapid. Of twenty-seven women, Puchelt informs us five died during labour, nine a short time after labour, ten recovered, and in three cases the results were not known. Abortion not unfrequently takes place when there is malignant disease of the uterus. The prognosis with respect to the life of the child is generally unfavourable; for the length of the labour, superadded to the compression which the child's head has to undergo when the carcinoma exists at the mouth or neck of the womb, where the patient is delivered by the unaided natural efforts or by the use of the embryospastic instruments, is generally sufficient to cause the death of the child. In the twenty-seven cases previously referred to, fifteen children were still-born, ten were born alive, and in two nothing is stated respecting the viability of the child.

Treatment.—In determining the method of treatment to be adopted in a case of pregnancy combined with malignant disease of the mouth or neck of the womb, we must carefully examine the seat, form, and size of the opposing obstacle; ascertain, if possible, and with as much accuracy as the case will admit, the dimensions of the pelvis; and then cautiously determine in our minds the chances of delivery occurring at the full period, by the unaided efforts of the uterus. In a case to which I shall presently allude, and where the tumor occupied the posterior part of the cervix, the labour, although rendered lingering, was terminated by the unaided uterine efforts.

Such instances, however, are rare; and artificial assistance of various kinds is necessary. Some authors recommend emollient injections:—these are of no avail. Others extol large blood-lettings:—venesection, although of the greatest advantage in simple rigidity of the os uteri, and induration of the os and cervix, the result of chronic inflammation, will be found of little or no value in carcinomatous affections of the uterus. Others, as Madame Boivin and Dr. Ashwell, recommend incisions to be made in the diseased parts, to permit the passage of the child: and it cannot be denied, that had

such an operation been performed in many of the recorded cases where the patients have died undelivered, either from rupture of the uterus or collapse, the chances are that the mothers' lives would have been prolonged, and the viability of the children secured. Some authors, as Lieutaud, Dugés, &c., recommend the extirpation of the tumor by the knife or cautery: this practice, however, is not adopted in this country; neither, in my opinion, is it at all practicable, much less advisable. Siebold recommends that version should be employed in such complications as these under consideration; but to introduce the hand into a uterus so much affected with malignant disease as that it is not considered prudent to leave the case to the natural efforts, and then to grasp and bring down one or both feet, would necessarily be attended with much violence and laceration, and the passage of the fœtal head would still present a great difficulty. It is, moreover, very unlikely that such an operation will become successful, as it regards the life of the child; for, in addition to the causes operating to render its viability doubtful, which is the case whenever version is performed, we have the additional one of the retardation produced by the non-dilatability of the soft parts through which it has to pass. Cases are recorded, where version has been performed, and, in order to expedite the delivery, more force than usual has been employed; but the patients have died almost immediately after delivery, from either rupture of the uterus or from collapse. The forceps will frequently be of great assistance, especially in those cases wherein there is but one, or it may be two scirrhous tubercles, and these not in an advanced state. A case presently to be related, and for the particulars of which I am indebted to Mr. Butler of Woolwich, is a very fine example of their application; and even here, Mr. B. delayed their employment until the natural efforts were allowed to do their utmost to accomplish the delivery. In cases where there is such structural change, that the application of the forceps is impracticable, and where the child is indisputably alive, as proved by its movements and by the auscultatory signs, it is of great importance to determine whether we are justified in opening that child's head and destroying its life,

or whether we should perform the Cæsarean section. This is a question which I think demands consideration. In many cases on record, I am of opinion that the life of the child might have been spared, if such an operation had been had recourse to; whilst several of the mothers died during labour or soon after delivery; and in others, their miserable existence was prolonged but for a few weeks.

Case 20.

In June 1835, I attended Ann S ——, a woman 40 years of age, in her twelfth confinement. I had not seen her previously, and therefore had no opportunity of becoming acquainted with her history before she was in labour. This woman had suffered severe pains for several hours previous to my visit: the liquor amnii had not escaped. On examination, I found the os uteri irregular in form, dilated to the size of a crown; the anterior lip occupied by a firm scirrhous tubercular deposit; the posterior lip, soft, thick, and very dilatable. After some hours of great suffering, the posterior lip dilated sufficiently to permit the head of the child to pass, this having been accomplished in half an hour: the child (under the standard size) was expelled. On examining the os uteri, after labour, I was perfectly satisfied as to its state: the anterior part of the cervix was thickened and indurated, and the anterior limbus of stony hardness. So far as the labour was concerned, the woman's recovery was most favourable; but the pressure to which the anterior lip of the os uteri was subjected, caused the disease to progress rapidly to ulceration; and in a few weeks, the patient laboured under all the symptoms of ulcerated carcinoma.

Case 21.

Sarah S ——, aged 39, placed herself under my care, in 1840. She was married; and had been pregnant nine times, having twice miscarried at the period of quickening. She stated, that her last, unlike the previous labours, had been lingering (48 hours), and had been attended with great suffering. Previous to her labour, she had suffered from pain in the back, increased whenever she had a motion; and the fæces, she said, were expelled with some difficulty. At

the time of the consultation, she was five months advanced in pregnancy. The following were her symptoms:—lancinating pain in the back, increased when in bed, or upon going to the water-closet, where she was compelled to remain for a long period, the evacuation of the fæces taking place by small portions at a time; and to obtain a motion, she was continually obliged to take aperient medicine: she stated she had lost flesh, and, from her countenance being florid and healthy, it had assumed a dirty parchment-like hue. On making examination, the posterior limbus of the os uteri and cervix was found of a scirrhous hardness: ulceration had not taken place, and there was but little vaginal discharge: the anterior section of the os uteri and its cervix appeared tolerably healthy. Examination *per rectum* detected the intestinal passage to be much narrowed by the pressure of the scirrhous tumor; and on passing the finger, to make the requisite investigation, considerable pain was occasioned: the verge of the anus was studded with hæmorrhoïds. But few local remedies were resorted to; consisting chiefly in the use of anodyne injections, as the decoct. papav., conii, &c. Her bowels were kept moderately regular, by a daily dose of mist. ol. ricini. c̄ tinct. rhei; and she was ordered a sedative at night. Under this treatment, she progressed until the expiration of the period of utero-gestation. As she lived at some considerable distance, I did not see her during her labour, which lasted sixty hours. The anterior segment of the os uteri dilated sufficiently to allow the passage of a small fœtus. After her labour, great pain and a sensation of burning were complained of in the region of the tumor; which was relieved, by the occasional application of leeches to the groins and around the vulva, and the use of anodyne enemata. Five weeks after her confinement, she called upon me, and complained that she suffered from all her previous symptoms, but in an aggravated degree. Vaginal examination detected a great increase in the local disease, but the anterior segment of the os was still free. Rectal examination proved that the calibre of the intestine was still more narrowed, from the pressure of the scirrhous mass. She was ordered pil. sap. c̄ opio gr. vi. pro suppositorio om. noct. imponend.; ol. ricini ℥fs. tinct. rhei c. ℥fs. quotidie manè sumend.

infus. gentianæ c. ʒxi. tinct. cinch. c. ʒi. bis in die. These medicines had their desired effect: the suppository kept her bowels quiet during the night; for before its employment she was disturbed several times, and the efforts made to obtain a motion were accompanied with distressing tenesmus. The castor-oil and rhubarb caused two fluid motions during the day. This treatment she was pursuing when I last saw her.

Case 22.

In 1836, I attended Mrs. R——, a lady residing at Walworth, with her third child. She was a weakly, delicate female, suffering frequently from headaches, and scarcely ever free from pains in her loins. During the latter period of her pregnancy she had frequent calls to pass her water: this she attributed to the presence of the child. Her labour was of one hour's duration, and a living child was born. My attention was called to the condition of the anterior part of the os uteri, there being four or five small hard bodies occupying its margin, about the size of peas: pressure on them did not give her pain. Her convalescence was rapid. In 1838, I was again engaged to attend this lady. Throughout the whole of her pregnancy she suffered greatly. For the first five months, there was the most distressing sickness, which nothing had the effect of relieving. During the last three months, my patient was scarcely ever free from pain, very similar to the grinding pains of labour. These were always increased upon her laying down in bed; and there was a remission in the morning. During the last month of utero-gestation, the pains were more aggravated; and on three occasions I was called to her, as she supposed labour had commenced. On Saturday, at 6 P.M., I found the os uteri of the size of a crown-piece; and in the anterior lip there were the bodies I detected at her last confinement, but varying in size: the two largest were of the size of horse-beans, and the others were as large as peas: they were very hard; and the surrounding uterine tissue was thickened, and harder than natural. With great difficulty the os uteri dilated, to permit the passage of the child, although the pains continued without intermission: still, I did not feel myself justified in interfering; and in this opinion I was confirmed

by a celebrated physician-accoucheur, whose advice I had solicited: and it was not until 7 P.M., on the Sunday, that the child's head passed the os uteri, when the labour was completed in one hour. The fœtus was dead. Nothing occurred to prevent my patient's convalescence, with the exception of pain and heat in the region of the tumors, which a few leeches and anodyne injections removed. In eleven months from this time, I again attended this lady: she was seven months advanced in utero-gestation. After seven hours' pain, a living child was expelled. I saw her occasionally for six months after her labour, when the disease in the mouth of the womb was evidently progressing. She has left Walworth, and I have not been able to ascertain the issue of her case.

Case 23.

I AM indebted to my friend Mr. John Butler, of Woolwich, for the particulars of the following case; which occurred in the person of Mrs. C., who was under the care of Mr. Gant, a surgeon of that town. "The liquor amnii was discharged in "the forenoon of the 18th February 1834, by the spontaneous "rupture of the membranes. On examination, it was dis-"covered that there was a hardness, amounting almost, if not "quite, to scirrhus, occupying at least two-thirds of the os "uteri; the scirrhosity extending from the os uteri over all "that part of the uterus which is felt in an ordinary examina-"tion *per vaginam* at the full period of gestation." The labour was left to the efforts of nature as long as was consistent, and up to 11 o'clock on the night of the 21st: the mouth of the womb was dilated, yet comparatively to a small extent, but was forced by the violence of the pains down almost to the os externum. The woman was bled; and it was then thought proper to introduce the forceps; which was carefully executed by Mr. John Butler, in the presence of his late father and brother. The delivery was by this means accomplished, with safety to the mother and child. The placenta quickly followed; the uterus contracted well; and by an examination made immediately after the delivery, the scirrhosity appeared to be of the size of a goose's egg. This patient lived rather more than three years after her delivery;

but was always in pain, and died with all the symptoms of true carcinoma uteri.

Case 24.

In April 1838, I was desired to call upon Mrs. C——. She stated, that, from her symptoms, she had supposed herself three months advanced in pregnancy; but that during the night she had been taken unwell: several small coagula had been expelled, unattended with pain: the discharge had not been profuse; for although eight hours had elapsed since the first occurrence of the red discharge, she had soiled but one napkin. Perfect rest on the sofa was enjoined, acidulous astringent medicines ordered, and cold drinks prescribed. In two days the discharge had ceased. I now learned from her, that five years previously she had a child: her labour was lingering, and the fœtus was still-born: this she attributed to the negligence of her medical attendant, who had left her; and the child, expelled before his arrival, was suffocated under the bed-clothes. Her general health had been good; and the only ailments which she had suffered were, a dull heavy pain at the umbilicus at the period of menstruation, and a leucorrhœal discharge. Three weeks after the occurrence of this flow of blood, she requested my attendance, under similar circumstances; which again subsided, by the exhibition of acids, astringents, and by rest. Up to July, she suffered from no peculiar symptom; she gradually increased in size, her mammæ became gradually developed, and the motions of the child were distinctly felt. At this time, being six months advanced in pregnancy (as she supposed), she was attacked with hæmorrhage of a very alarming character, unattended with pain, which the application of cold to the genitals, and the exhibition of the ordinary astringents, failed, at first, to check. At this time, unable to account for these attacks of bleeding, I proposed an examination, to which she consented. I found the whole of the os uteri affected with malignant disease of a fungoid character. It was now a question with me, whether she should be allowed to proceed to the full time of utero-gestation, or whether premature labour should be induced; the parts being so extremely diseased, that I had great doubts of their allowing the expulsion

of a nine months' child. To settle this question, I met an accoucheur of high standing; and was perfectly astonished to hear him express a decided opinion that the lady was not pregnant, although he agreed with me as to the nature of her disease. This opinion he formed upon his digital examination alone; and to my reiterated request that he would listen to the fœtal pulsation and uterine *souffle*, his only reply was, that he never resorted to this means of diagnosis, but trusted entirely to his manual tact, which a long practice had rendered dexterous. Not satisfied, I requested to have the additional opinion of Dr. Blundell; who, after a careful examination, and without knowing the difference of opinion in the case, stated she was pregnant, correctly dated the period of her pregnancy, and coincided with me as to the nature of the disease. He strongly advised that she should be allowed to proceed to the full period of utero-gestation; stating, that, in his opinion, those cases did best that were left to nature. This lady, from this time until the end of October, suffered from three several attacks of hæmorrhage. On Thursday afternoon, labour-pains were established: these went on gradually and regularly through Thursday night and Friday, with but little influence on the diseased parts. Having administered an anodyne, she obtained two hours sleep, and awoke much refreshed: her pulse was as strong as before the commencement of labour, and her spirits were good. At 7 P.M. on Friday, her pains again recurred, and continued through the night. On Saturday morning there was great tension of the diseased structures; the pains became of a most violent and expulsive character; and at 5 o'clock on Saturday afternoon a very large piece of the diseased mass was torn away, and forced before the head of the child, which rapidly descended into the pelvis, and was expelled, followed by the placenta. The child, a small female, was dead; the cuticle separated in many places. On examination after delivery, the chasm left was so large, that the hand might readily have passed into the uterus.

This lady convalesced very quickly; and in three weeks from her delivery was in her drawing-room, upon the sofa. She lived for six months after her delivery; and died during the syncope produced by a profuse vaginal hæmorrhage.

Case 25.

Ann M——, an out-patient, under my care, at Guy's Hospital, with carcinoma uteri, married, became pregnant, and miscarried between the third and fourth month of utero-gestation. In five months she again became pregnant, and again miscarried. In three months' time, pregnancy again occurred, followed in a few weeks by a third miscarriage. These repeated abortions appeared to have a prejudicial influence upon her constitutional powers, depressing them to a very great degree, and attended, in my opinion also, with injury to the local affection; for ulceration speedily followed the last abortion; its progress was rapid; and in eight days she died.

g. Pregnancy associated with Cauliflower Excrescence.

This disease of the uterus was first termed Cauliflower Excrescence, by Dr. John Clarke, in the Third Volume of the Transactions of a Society for the Improvement of Medical and Surgical Knowledge. The name was continued by his brother, Sir C. M. Clarke, in the Second Volume of his Work on the Diseases of Females. It appears to differ but little from that disease described by Herbiniaux and Levret, under the term "Vivaces": it consists in the growth of a highly vascular tumor, of a bright flesh colour, with a granulated surface, generally growing from a part or the whole of the os uteri, and sometimes also from the uterine cavity. If a vaginal examination be made, and the tumor be pressed firmly, it generally bleeds: its progress is marked by a copious discharge of a watery fluid, which is generally the first symptom that attracts the attention of the patient. These serous discharges are frequently exchanged for, or mixed with, profuse hæmorrhages, which induce anæmia, with all its attendants. As the disease progresses, the patient generally becomes anasarcous; and before death there is oftentimes effusion into the serous cavities. Sir C. Clarke is of opinion that it consists of a congeries of vessels; for if a ligature be applied, the tumor disappears, although in a short space of time it is reproduced: if an inspection be made after death, nothing but a mass of loose flocculi can be discovered. The size to which the tumor grows generally,

depends upon the dilatability of the vagina, which in some women is narrow and contracted, and the cauliflower excrescence is consequently small; whereas the vaginæ of married women allow the tumors to acquire a great magnitude, in some cases so large as to protrude through the os externum. The cause of the formation of these tumors is not known: it cannot depend, as some have supposed, upon injuries received during labour, as they occur in the unmarried as well as in the married. Some have supposed that excessive coition and syphilis will produce the disease; but it does not appear to be more common among prostitutes than among females of virtuous habits. I have seen but one case in a prostitute; and the others I have witnessed did not seem to occur in patients whose constitutions were affected with any syphilitic taint.

The disease most likely to be mistaken for cauliflower excrescence is the fungoid form of carcinoma, where there are numerous polypoïd growths. The history of the case, and a vaginal examination, will assist our diagnosis. Where pregnancy has been associated with this disease, it has been mistaken for the presenting placenta; but a surgeon accustomed to the tactile examination of uterine diseases is not likely to make such a mistake. With regard to the prognosis, this disease, so far as I have seen, always terminates in death; the fatal result, however, depending upon the resistance of the vagina, and the strength of the patient's constitution. Where this disease is associated with pregnancy, it rarely offers any very serious obstacle to the progress of labour; although serious, and occasionally fatal, hæmorrhage follows the delivery of the child: but where it is of such size that it is likely to impede delivery, a ligature should be applied before the symptoms of labour supervene. Where pregnancy is associated with cauliflower excrescence, it frequently terminates in abortions: this is shewn in the case to be presently narrated; also in the one recorded by Dr. F. Ramsbottom, in the foot note of page 246 of his work previously quoted. Cases of pregnancy occurring in women affected with cauliflower excrescence are also recorded by Sir C. M. Clarke, M. Lachapelle, Denman, Michaëlis, Zippenfield, D'Outrepont, and others.

Case 26.

The only case I have seen in which pregnancy was associated with this disease occurred in the person of Jane Mortimer, who was under my care, as an out-patient at Guy's Hospital. During the treatment of her case, she became pregnant, but aborted at the fourth month: the hæmorrhage accompanying the miscarriage was very profuse, and the patient was greatly anæmiated. In six months' time she again became pregnant; and about the thirteenth week again miscarried; the hæmorrhage attending which was of a most alarming nature, and reduced her powers to so low an ebb, that she lingered for some weeks, and then sank.

The body was inspected by my friend Dr. H. Glasspoole, of Jamaica, and myself. Although a considerable excrescence was detected, by a vaginal examination during life, nothing but a mass of loose flocculi could be found, attached to the circumference of the os uteri and a portion of the inner membrane of the cervix.

Some authors have described cases of steatomatous, encysted, and varicose tumors of the uterus, associated with pregnancy, and obstructing labour. Such cases have not fallen under my notice.

II. Tumors in the Vagina.

Tumors that form in the vagina, and obstruct parturition, may be considered under the following heads: 1. Abscess, the result of inflammation: 2. Tumors of a specific character. 3. Malignant tumors: and, 4. Tumors depending upon accidental causes.

1. *Abscess.*—Abscess of the vagina during pregnancy is much more rarely met with than abscess in the labium: it may follow the use of stimulating injections into the vagina, for the cure of leucorrhœa, or the suppression of a gonorrhœal discharge. It is preceded by symptoms of inflammation, marked by weight, a feeling of pain and bearing down, increased upon the patient's assuming the erect posture, and during the passage of the fæces: accompanying these sym-

ptoms, there is generally some febrile action, indicated by quickness of the pulse, thirst, headache, heat of skin, &c. When rigors occur, which is generally the case within two or three days after the development of the first symptoms, the acute pain is relieved, although the sensation of weight and bearing down continues. If an examination be made in the first stage, the vagina is found to be swollen, indurated, and acutely sensible at the seat of inflammation; and if at the latter stage, the soft fluctuating tumor, thinner in points, will be readily detected. So soon as fluctuation is felt, an opening should be made to evacuate the pus, which is usually most horribly fetid. I have seen two cases of abscess in the vagina during pregnancy: both the patients were prostitutes, and both were prematurely confined: they had laboured under gonorrhœa, and had used stimulating injections: one had injected a strong solution of bichloride of mercury; the other had used the lotio nigra. The abscesses were opened during the time they were in labour; and in each case a considerable quantity of most fetid pus was evacuated. Probably, if an artificial opening had not been made, the uterine efforts would have sufficed to cause laceration of the vaginal wall of the abscess; which in one case was thinning in the centre; in the other case, nearer to the outlet. Cases of vaginal inflammation terminating in abscess, and caused by the suppression of acute leucorrhœa, are recorded; but no such case has fallen under my notice.

2. *Tumors of a Specific Character*, which grow from the vagina and occupy the cavity, are of various kinds: they consist of Polypi, Encysted, Fibrous, Steatomatous, and Sarcomatous Tumors.

Polypi.—Polypi vaginæ are by no means so commonly met with as polypi uteri: they are more firm and solid, and are not usually attended with those alarming hæmorrhages which mark the progress of the latter. Occasionally, they acquire a size sufficient to impede the passage of the child's head; but they more frequently are met with of smaller size, and rarely removable. Van Doëveren, in his Specimin. Observationum Acad. cap. 9. relates the case of a female who had been in labour twenty-four hours: when he was called

to her assistance, he found the birth of the child was prevented by a large polypus, which grew from the anterior surface of the vagina. He twisted the pedicle round and round, until he separated the tumor: the natural efforts continuing, the woman was delivered of a putrid child. The patient ultimately recovered, although, for some days, her symptoms were sufficiently severe to excite apprehensions for her safety. Ginsoul, in the "Compte rendu des Travaux de la Société de Médicin de Lyons," has recorded a case of a vaginal polypus impeding labour, which was brought away by the forceps, and weighed twenty-two ounces. Denys relates the case of a woman to whom he was called after she had been in labcur for three days: on examination, he found the right side presenting, and the umbilical cord prolapsed: from the posterior part of the vagina there grew a large polypus, of the size of a goose egg. The operation of turning was resorted to, and performed with difficulty on account of the tumor; and the child was still-born. My experience leads me to conclude that polypoïd tumors more frequently grow from the anterior than from the posterior wall of the vagina, or its sides. The diagnosis of the tumors is not difficult, unless they have acquired a size sufficient to prevent the introduction of the finger to detect the part from which they spring. The treatment of these tumors, when discovered during pregnancy, should be as follows: — If they are of small size and are not likely to impede the passage of the child, and if they do not produce any untoward or urgent symptoms, they may be left until the patient has recovered from the effects of parturition; but if their size is of such dimensions, that great inconvenience and protraction of the labour is likely to result, or if there is hæmorrhage or any other unnatural symptom, their removal must be undertaken. Unlike polypus uteri, polypoïd tumors of the vagina seldom, or never, become less, after labour has taken place. The former progresses with the development of the pregnant womb; while the latter, being attached to and growing from, the vagina, has not that greatly-increased vascular supply which polypus uteri has in common with the impregnated organ. There are three methods of removal: 1st, By means of the ligature and

canula. Unless the tumor be extraordinarily large, it is very readily encircled by means of Gooch's canula: if such be used, we must employ one much shorter than that in common use, or it will be found exceedingly inconvenient to the patient. 2dly, By excision. Excision can be practised much more easily and satisfactorily in polypus vaginæ than in polypus uteri, because the tumor is more accessible; and if hæmorrhage should result, it may readily be commanded, by plugging the vagina. In performing the operation, the patient should be placed in the same position as for the operation of lithotomy: the tumor, grasped by a pair of forceps or a hook, is drawn down, and with a probe-pointed bistoury its separation is accomplished: sometimes its attachment is so external, that the bleeding vessels, if any, are brought into view, and readily secured by ligature: if that is impossible, and the hæmorrhage continues, plugging the vagina will seldom fail to check it. 3dly, But the most satisfactory, and perhaps the safest method of operating, is a combination of the two: viz. the application of a ligature around the pedicle, and then excision. This I have performed two or three times, on patients who have not been pregnant; and once, on a patient six months advanced in utero-gestation, which case I shall presently relate. If the polypus be not discovered until labour has commenced, or if it be of small size and not likely to impede the progress of the child, it may be left until after the patient has fully recovered from the effects of parturition; but if its dimensions will cause any obstruction to the passage of the fœtus, it may be removed; and, in my opinion, the best method of operating will be the combination of the ligature with excision. The operation of torsion practised by Van Döveren is, for the most part, inadmissible; for the pedicle of the tumor is usually large, and it is generally more firm than in polypus uteri: the pains attending such an operation are very severe; and the soft parts may be lacerated, if much resistance is offered by the neck of the tumor.

Case 27.

A patient, aged 32, married nine months, and six months advanced in pregnancy, complained to me of a falling of her

womb, from which she had suffered for some time before her marriage; and which, she stated, had interfered with sexual intercourse. She complained of central pains, a sensation of weakness and dragging in the loins, and she laboured under a leucorrhœal discharge: whenever she made efforts to empty the bladder or rectum, the bearing-down pains were increased. Upon instituting a vaginal examination, I readily detected a polypoïd tumor growing from the anterior wall of the vagina, with a pretty large pedicle, extending backwards to the posterior wall, with which it was in contact: the tumor was firm and solid, and about the size of a duck's egg. Taking into consideration the patient's age, her first pregnancy, the size of the tumor, &c., I determined upon its removal; as it was likely to prevent the passage of the child, or at least render the labour very protracted, and perhaps cause some risk. This was accomplished by placing a ligature around the neck of the tumor, and excising it below the ligature. After six days, the ligature came away: some vaginal discharge continued for three weeks or a month: the patient did well, and was safely delivered at the usual period: her labour was protracted, from the premature evacuation of the liquor amnii, and the rigidity of the soft parts.

III. ENCYSTED TUMORS OF THE VAGINA.

ENCYSTED tumors are occasionally found in the vagina, and, by their presence and size, impede the progress of labour. In the Thirty-fifth Volume of the Edinburgh Medical and Surgical Journal, p. 82, there is a very interesting Paper by Dr. Heming, in which he traces the origin of these tumors to obstructed lacunæ, which thereby become dilated into cysts, distended by gelatinous fluid. These tumors are not confined to either wall of the vagina; the anterior is as obnoxious to them as the posterior: when they form on the latter, they are likely to be mistaken for hernia, enlarged ovary, &c.; but a careful examination will readily enable us to determine their nature. When they form on the anterior wall, they have been mistaken for descent of the bladder: here also cautious examination, and the introduction of the

catheter, will enable us to decide upon their seat and origin. If these tumors are discovered before labour, they may readily be dissected out entire, through the vagina: this operation, although attended with considerable hæmorrhage, is seldom dangerous; and the bleeding is controllable, by plugging the vagina. If the tumor be not discovered until the process of labour is established, an incision into it, through the vagina, will allow its contents to escape, and remove the obstruction. The following case is the only one I have seen in a pregnant woman.

Case 28.

Upon instituting an examination, to ascertain the progress of labour in Mrs. ——, I detected a tumor situated in the posterior part of the vagina, and projecting a considerable way into the canal: its attachments seemed very loose, for it could readily be moved. Upon interrogating the patient, I found she was aware of its existence; and stated, that during the last few weeks of her pregnancy it had rapidly increased: there was difficulty in defæcation, and a constant sense of weight in the pelvis, with bearing-down pains, and a sensation of dragging in the loins. Examination *per rectum* satisfactorily proved that the bowel was not implicated. I at first took the tumor to be an ovarian cyst; but by carefully tracing its origin, this idea was abandoned. In the course of a few hours, the head of the child came down, and pressed the tumor before it, which became tense: as the uterine efforts were violent, and there appeared no probability of the labour being accomplished without the intervention of art, I ventured to puncture the tumor, when a discharge of gelatinous fluid took place: the cyst collapsed, the child was rapidly expelled by the natural efforts, and the patient did well.

The vagina is liable to the development of steatomatous, sarcomatous, and fibrous tumors, all of which I have met with in the unimpregnated female; but as I have not seen them associated with pregnancy, I shall pass to the consideration of

Malignant Disease of the Vagina.

Although the vagina is but rarely affected with malignant

disease, in comparison with the frequency of its development in the uterus, yet, occasionally, scirrhous and encephaloïd tumor so alter the tissues and coarct the canal, that the delivery of the child, without assistance, is impracticable. Marchand relates, that the Cæsarean section was performed by Ledoc and Gauthier upon a female in whom the vaginal entrance was so narrowed by a scirrhous "*bourrelet*" that scarcely one finger could be admitted. Rœderer relates a case in which he performed the operation of perforation when the nymphæ were enlarged from scirrhus, and when the vagina was so filled with scirrhous granulations that the head of the child could not pass. I have seen two cases of pregnancy combined with malignant disease of the vagina in the os externum.

Case 29.

Elizabeth L—— came under my care, complaining of certain symptoms which led me to suppose she had malignant disease of the womb. Upon instituting an examination, the os uteri was found healthy, but the posterior part of the vagina was in a state of scirrhous ulceration, accompanied with ichorous and very offensive discharge, occasionally alternating with blood. Defæcation was performed with difficulty and with great pain. She had borne three children; her labours had been good, although she had suffered since her last confinement, two years before I saw her: she had emaciated rapidly, and the discharge had existed for three months. She complained of some darting pains in the pelvis, back, and inner parts of the thighs: the inguinal glands on both sides were enlarged and indurated. Whilst under my care as an out-patient, she became pregnant, and went on until the fifth month of utero-gestation, when symptoms of abortion made their appearance: the hæmorrhage was of an alarming character, and the pains violent and long continued. These lasted for some time, but without the expulsion of the ovum. I visited her, and found her exsanguineous, complaining of frequent forcing pains: on examination, the ovum was felt partly protruding through the stricture of the vagina caused by the development of this disease: with a little manipulation, I was enabled to remove it: her pains then ceased. She lived for four months

after this miscarriage, a miserable spectacle; for in about three weeks after her abortion the recto-vaginal partition ulcerated, producing recto-vaginal fistula.

Case 30.

The other case occurred in the person of Maria T——; whose case has been fully reported by Dr. J. Ridge, at p. 47 of the Second Volume of the Guy's Hospital Reports.

Where malignant disease is associated with pregnancy, it is a question of great moment to decide whether we ought to induce premature labour, in order that the body which has to pass the narrowed birth-passages should be proportionably small, or whether we should allow the patient to go on to the full period of utero-gestation. If the latter be decided on, we shall have to determine whether we are justified in destroying the child by opening its head, or whether the Cæsarean section should be performed. In my opinion, we should do right in having recourse to the latter, rather than to the former; but I have not had sufficient experience to strengthen this opinion. If it be determined to sacrifice the life of the child, whatever be the stage of the disease, it is far preferable to induce premature labour than wait till the completion of pregnancy. If the disease be not detected until the occurrence of labour, the surgeon must determine whether the case may be trusted to the natural efforts, or whether artificial assistance is to be given.

IV. Tumors depending upon accidental causes.

Sanguineous Tumors, or Thrombi.

Thrombi are sanguineous tumors, which form in the labia or vagina, covered by mucous membrane, and produced by the rupture of a vein, and consequent effusion of blood into the cellular tissue. These tumors sometimes attain such a size, that, by their magnitude, they impede labour. Many such cases are collected in the treatise of Deneux, "Sur les Tumeurs sanguines de la Vulve et du Vagin:" in the work of M. Lachapelle, Tom. III. p. 310: in the "Observationes Anatomicæ" of Bartholinus, p. 169: cases also are related by Zeller, Siebold, Naëgle, &c. An interesting case is mentioned

by Dr. Ingleby, at p. 109 of his "Obstetric Medicine," in which Mr. Elkington extracted, by means of a pair of dressing forceps, coagula which nearly filled a pint basin; a considerable quantity remaining, and causing sloughing. The extravasation of the blood into the cellular tissue usually occurs at the time when the child's head is expelled; but in the only case I have seen (the one presently to be related) it occurred while the child's head was yet in the pelvic cavity, and before it pressed upon the perinæum. In such cases, there is generally a small and contracted pelvis, or the child's head may be large or firmly ossified: it arises from the return of blood being prevented by the pressure of the presenting part of the child; and the pains continuing violent, the distended veins become more and more swollen, and at length the distention being increased, the vessels give way, the blood is poured into the cellular tissue, the quantity effused becomes greater and greater, the tumor proportionately increases, till at length the thrombus becomes of such a size as to impede the progress of the labour. The sudden formation of the tumor, its rapid increase, its gradual enlargement at every successive pain, and the sensation communicated to the finger, will readily enable us to distinguish between this tumor and abscess, encysted tumors, &c. If the thrombus is formed while the child's head is in the pelvic cavity, the pressure made upon the tumor during the birth of the child generally causes the mucous membrane to give way: the contents of the tumor are then evacuated: they consist of fluid and coagulated blood, and the quantity which is sometimes let out is very considerable. In Dr. Ingleby's case, the coagula filled a pint basin; while a considerable quantity was still left, and occasioned sloughing. In a case related by Zeller, the tumor was of the size of a fœtal head. I have stated, that, in many cases, these tumors form at the time the child's head is expelled, and of course cannot then offer any impediment to the labour: when, however, they form while the head is still engaged in the pelvis, where the cavity is very small, and when the child's head is large or extraordinarily ossified, more or less obstruction will be caused by the formation of such a tumor. If the mucous membrane covering the tumor give way, the greater part of the con-

tents will be evacuated; and if the effusion be large, it will lessen the strength of the patient, especially if her powers have already been enfeebled by her lingering labour. The results of the published cases enable us to conclude that the effects of these swellings are not generally fatal, either to the mother or the child. Where a thrombus exists of a size sufficient to obstruct the progress of the child's head, an incision should be made sufficiently large to evacuate the contents of the tumor: if this is not done, the mucous membrane covering the tumor will give way, the cellular tissue will become torn and inflamed, and this inflammation will frequently terminate in sloughing.

To accomplish delivery, version was employed in one case related by Deneux, p. 23; the forceps in a case related by Siebold; the vectis was used by Zeller; and the perforator in the following case.

Case 31.

Margaret Mahoney, aged 28, a patient of Guy's Hospital Lying-in-Charity, was taken in labour November 6th, at 6 P.M. Her pains were regular and frequent: the os uteri gradually though slowly dilated. At 7 A.M. on the 7th, Mr. Shaw, the pupil in attendance, sent for me. There was great rigidity of the external parts; the head was partly engaged in the pelvic cavity; the pulse was full and hard; and the patient was restless. I ordered V. S. ad ℥xvi. & enema commune stat. injicend. At 8½ A.M., after a very severe pain, the right labium became much swollen, the swelling during each succeeding pain extending to the vagina and perinæum. I was again sent for, and found her as described. Her pains were of the most violent character; the head was pressing firmly upon the distended soft parts, momentarily threatening laceration. While, therefore, I dispatched a messenger for the instruments (intending to use the forceps), I endeavoured to abate the uterine efforts by acting upon the fears of the woman in the manner sanctioned by the late Dr. Hamilton in a similar case (Practical Observations, p. 61), but without success; for the woman strained and struggled most inordinately, and the return of a pain more violent than the former caused the inner mem-

brane to give way, and allowed a large quantity of blood, both fluid and coagulated, to escape. Dr. Ashwell accompanied my messenger with the instruments; and immediately decided upon lessening the child's head, being fearful that the laceration would be rendered much greater by the employment of the forceps. I speedily evacuated the cranial contents; Dr. Ashwell completing the operation with the craniotomy forceps, although with some considerable difficulty. After a convalescence somewhat protracted, the patient did well.

The following case, although not legitimately placed under the head of Thrombi or Sanguineous Tumors, still possesses some points of interest, so that I have thought it well to insert it.

Case 32.

I was engaged to attend Mrs. W., residing at Islington, in her first confinement. From her I learned, that before her marriage, which took place six months before my introduction, she had been under the care of an eminent surgeon for a tumor occupying the left labium and vagina, who had operated by passing a double ligature through the tumor, and tying it on either side. She stated, that since her quickening the tumor had rapidly increased, and was at that time nearly as large as before the operation. Upon examining her, I found a large spongy tumor, of an erectile character, occupying the left labium, and passing up the left side of the vagina: it was exceedingly hot, and, when pressed firmly, gave her pain; this was also produced by exercise, and by maintaining for a long time the erect posture. The posterior part of the vagina towards the perinæum was contracted, probably the result of the ligature which had been applied. I ordered her to lie on her sofa as much as possible, and to keep an evaporating lotion constantly applied to the swelling. By these means, any further considerable increase was prevented: she was delivered of a living girl, after a natural labour of twelve hours' duration: her child was small. After her confinement, the tumor diminished in size, and became nearly as smooth as before the supervention of pregnancy. The only inconvenience from which she laboured being an exces-

sive secretion of milk. She nursed her child for nine months; and in three months after weaning, again became pregnant. The tumor soon began to increase; and notwithstanding she followed the advice given her on the previous occasion, the tumor became much larger than it was during her former pregnancy, and the pain complained of during the latter weeks of utero-gestation was very great. When she was taken in labour, the os uteri rapidly dilated, and the child's head quickly passed into the pelvis: it was however detained in the vagina, from its size being large, from the contraction caused by the operation, and also from the large size of the tumor: it was at length expelled, the uterus acting with extraordinary vigour. After the birth of the child, there was a considerable hæmorrhage from the vagina; and upon examination, the blood was detected issuing from a laceration in the vaginal swelling. A dossil of lint was kept applied to the part for a considerable time, and the hæmorrhage was stayed. The patient rapidly convalesced. She has not since been pregnant; and when I saw her, eighteen months since, the tumor was nearly of the size it presented before she was first pregnant.

The vagina is sometimes covered with large dilated varicose veins: these rarely offer any obstruction to the progress of labour. One of the evils I have known result from a varicose state of the vaginal veins, is, that coagulation of the blood sometimes takes place, followed by inflammation and abscess, not sufficient to arrest the progress of the labour, but increasing to a very great degree the sufferings of the patient. One case of this kind I have witnessed, where the agony endured by the patient was almost insupportable. Another result of varicose vaginal veins is, laceration of one of the enlarged vessels, and consequent copious hæmorrhage. To a case of this kind I was once called: the patient was delivered before my arrival, and had lost a considerable quantity of blood: bleeding was still going on, but not to a great degree. Her labour had been protracted, the mother having a small but regularly-shaped pelvis; and the child, a large, firmly-ossified head. Pressure with a dossil of lint was made over the laceration, which was not

very large, and the bleeding was stayed. The patient was anæmiated for a very long period.

WARTS.

The vagina and external parts are sometimes so covered with warts, that the progress of labour is impeded, as well as the suffering of the patient considerably augmented. These impediments are generally found in women of loose character, the worst of prostitutes, &c.; and their existence is not generally made known to the attendant before the accession of labour: if, however, he be informed of their presence, he should employ those remedies calculated to remove them, before the commencement of parturition.

Case 33.

I was called to a patient living in Pearl Row, Borough Road, by a gentleman attached to the Lying-in Charity of Guy's Hospital, who informed me, that he had been with the woman four hours; that during the first three hours, the labour had progressed naturally, but for the last hour the head had been detained by a number of warty growths, which completely covered the external parts and introïtus vaginæ. He assured me the patient's sufferings were of a most acute character, and her cries could be heard at some distance from the house. At the time of his attendance, she was labouring under gonorrhœa. On examination, I found her condition to be precisely what he had described; but shortly after my arrival, during a very violent pain, the child was expelled. After the labour, the soft parts became hot, swollen, and inflamed; and on the fourth day the warts commenced sloughing off, and by the seventh day were entirely separated. This female was a prostitute of the lowest description. I have, in three other instances, seen warts occupying the interior part of the vagina and external soft parts, but in no instance to the extent found in this woman; neither did they, in any degree, impede the progress of labour.